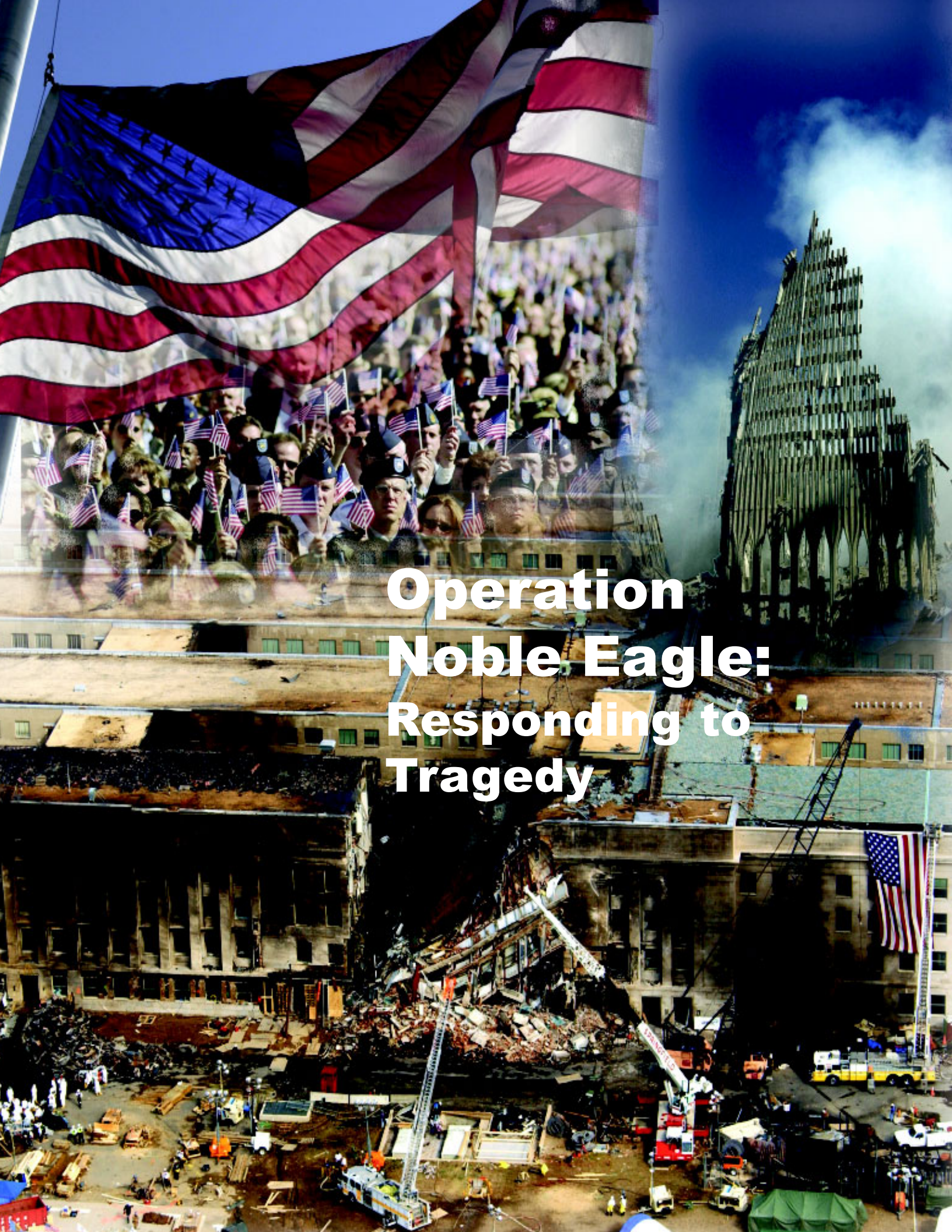

Operation Noble Eagle: Responding to Tragedy

Report Documentation Page

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Maj Gen Earnest O. Robbins II

FROM THE TOP

Stay the Course

As the terrible events of September 11 sink in, I want to pass along some thoughts to the Air Force civil engineer family.

Everyone in the Air Force has been affected by these events. Blue-suiters, civilians, contractors and our families have suffered as we watched the almost surreal tragedies in New York, Washington and Pennsylvania replayed, discussed, debated, analyzed, etc., in the media, around the water cooler and across our own dinner tables. Everyone knows what happened — nobody knows why it happened — and worst of all, nobody knows when it might happen again.

Meanwhile, members of the civil engineer team continue to support our Air Force. Despite our grief and our concerns for our country and our fellow citizens, we continue to do whatever it takes to keep our installations safe and secure, while taking care of the important day-to-day functions which keep our installations operating.

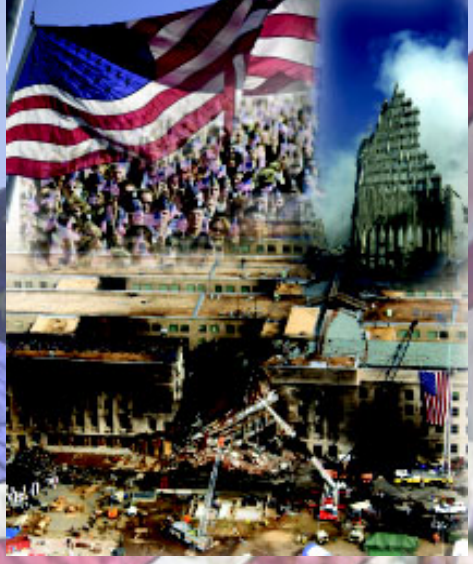
Civil engineers are providing mission-critical support to Operations Noble Eagle and Enduring Freedom. We have also suffered the first casualty of these operations. MSgt Evander Andrews of the 366th Civil Engineer Squadron was killed in a construction accident while deployed to the Arabian peninsula on Oct. 10. Sergeant Andrews served 18 years in the Air Force. As we mourn the loss of one of our own, I'm reminded of the strong bonds of the Air Force civil engineer family and the contributions and sacrifices of all the men and women who proudly serve our nation. We will get through this together.

There's one particular segment of our civil engineer family I want to address — our fire protection professionals. During my 32 years in Air Force blue, all of them as a civil engineer officer, I've grown to admire and respect the special bond among members of the fire protection profession across the spectrum, whether they serve the military or the civilian community. That kind of universal comradeship comes, I suspect, from the shared commitment in the strongest possible terms to "Service Before Self" as a way of life.

Every single person, whether they're military or civilian, enlisted or officer, white collar or craftsman, should and must know that they are important, that their job is important, and that what we bring to the Air Force and our nation is part of a complex, too-many-moving-parts-to-imagine instrument of incredible power, reach and precision.

I am incredibly proud of each and every one of you and assure you that all your efforts are worth it. Stay the course.

Features



On the cover ...

Terrorist attacks on the United States Sept. 11, 2001, left thousands dead when the World Trade Center towers and part of the Pentagon were destroyed. Air Force civil engineers answered the call — participating in both disaster recovery and base hardening efforts. Story page 4.

Departments

Please send story ideas, articles, photos, comments and suggestions to **cemag@tyndall.af.mil**

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Responding to Tragedy:
Operation Noble Eagle

by Letha Cozart
Editor

On September 11, 2001, New York's World Trade Center towers and the Pentagon were attacked by terrorists — hijackers who commandeered civilian passenger planes in their war against the United States, crashing them into the buildings. Air Force civil engineers were part of the rapid response that followed — rescuing survivors, fighting fires, running logistics supply points and equipment staging areas at "Ground Zero" in Manhattan, hardening bases and preparing for a U.S. military response at locations worldwide.

Civil engineers attached to the 10 fighter wings assigned to First Air Force (Air National Guard) scrambled to support flying operations as their wings were activated to fly combat air patrol over U.S. cities. On active duty bases across the country, firefighters, EOD specialists, and the power production personnel who operate and maintain aircraft arresting barriers supported launch and recovery of sorties during the immediate post-disaster alert.

The Air Force Civil Engineer Support Agency at Tyndall Air Force Base, FL, activated the CE Readiness Operations Center, providing around-the-clock readiness, operations, explosive ordnance disposal, fire protection and Air Force Contract Augmentation Program (AFCAP) support to the Crisis Action Team cells at the Air Staff and major commands. Meanwhile, the defense posture was ratcheted up at U.S. military bases worldwide. Increased force protection measures required civil engineers to install restrictive barriers at various locations on bases and assist with noncombatant evacuation operations overseas.

FBI agents, firefighters, rescue workers and engineers work at the Pentagon crash site on Sept. 14, 2001, where a hijacked American Airlines flight slammed into the building three days before. The terrorist attack caused extensive damage to the west face of the building and followed similar attacks on the twin towers of the World Trade Center in New York City. *(DoD photo by TSgt Cedric H. Rudisill)*

The Department of Defense response to the crisis was named Operation Noble Eagle. As the homeland defense and civil support operation began, civil engineers went to work helping wherever needed.

Among those helping at Ground Zero, the site of the collapsed World Trade Center towers, were personnel from New York's five Air National Guard civil engineer squadrons: the 105th CES, Stewart Air National Guard Base, Newburgh; the 106th CES, Francis S. Gabreski Airport, Westhampton Beach; the 107th CES, Niagara Falls; the 109th CES, Stratton Air Guard Base, Scotia; and the 174th CES, Syracuse.

"It was a collective effort," said Maj Earl Evans, 174th Fighter Wing Base Civil Engineer. "We had engineers from the five Air Guard bases in New York. The work that we did differed, there was some engineering work and some logistics work. A big part of our operation for the first week and a half or so was running logistics supply points and equipment staging areas around Ground Zero.

"We worked with the New York Housing Authority in distributing and controlling items such as small generators and government trucks. We assisted the Army National Guard in setting up a sort of central warehouse facility, collecting stock from drop off points all over the city, setting it up, cataloging and distributing it. There were also smaller tasks — putting up tents where they were needed and building wood crates for the fire department."

"A lot of the expedient-type construction done was in support of the New York City Mayor's Office of Emergency Management," said Maj Jesus Figueroa, 106th Civil Engineer Squadron commander. "We also did a lot of force protection, augmenting the Army National Guard in providing resource protection throughout the Ground Zero location. We also supported the city, on the environmental

New York City construction crews remove debris and large structural beams from Ground Zero during recovery operations. *(Photo by MSgt Ed MacNabb)*

TSgt Nick Marchisello, an Air Force Reservist with the 514th CES and New Jersey firefighter, awaits the order to enter the rubble of the North Tower of the World Trade Center. *(Photo by Capt Jim Fabio)*

side, in brainstorming expedient ways of accomplishing decontamination procedures for the troops coming out of the Ground Zero area."

Another mission for the CEs was finding a location where all the deployed Guard troops could be bedded down.

"For the first week and a half or so they were at armories, they were at Fort Hamilton, they were kind of all over the city," said Evans. "Then we worked out a deal with the Coast Guard to use Governor's Island. They were hesitant at first because the buildings on the base had been shut down for the last few years — it's basically a pickled base," said Evans. The Coast Guard had closed their base on Governor's Island, a 172-acre island in New York harbor, in 1997.

"We worked with the Coast Guard to get access to some of the old apartment buildings and the dining hall," said Evans. "Then a combined team of Prime BEEF personnel from all five New York ANG units went in and re-commissioned them.

"When I left the site recently, they had opened a 99-

Plans and programs specialist Adam Buehler of the 305th CES, McGuire AFB, NJ, monitors the Disaster Control Group in the Emergency Operations Center and talks with squadron representatives from the medical, logistics, operations and support groups after the terrorist attacks Sept. 11. The DCG is responsible for pulling together the resources of the base to serve as the backbone of emergency incidents. *(Photo by Scott H. Spitzer)*

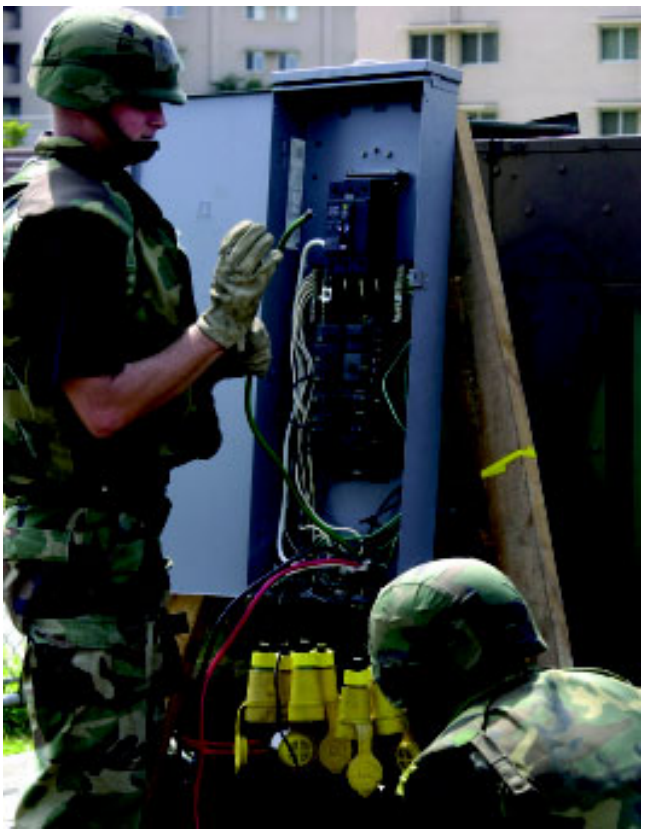
apartment building and were using about 75 of the apartments. The other 24 apartments had to be condemned because of roof leaks and things like that. We've also opened two 11-apartment buildings and the dining hall.

"We also have firefighters on the island. There is a very small federal fire department on Governor's Island to protect

New York Air National Guard personnel off-load tent parts as they begin setting up a base camp for the Army on Randall's Island, New York City. The effort was abandoned when it was discovered that the site was a capped landfill and the stakes could not be set in far enough to maintain the tents. *(Photo by MSgt Ed MacNabb)*

Personnel from the 174th CES, 109th CES and Det. 1 (ANG GSU) from Fort Drum, NY, return from their first 12-hour night of "security" detail for the Ground Zero area. *(Photo by MSgt Ed MacNabb)*

188th Fighter Wing, Arkansas Air National Guard, civil engineers deliver concrete barriers to the front gate at Fort Smith shortly after the Sept. 11 terrorist attacks. *(Photo by SMSgt Dennis L Brambl)*



51st CES "Mongrels" connect wires for a generator used during the off-base housing evacuation to Osan Air Base, Republic of Korea, Sept. 12, 2001, following the attacks on the United States. *(Photo by SSgt George F. Thompson, Jr.)*

the resources out there, but because no one lives on the island except for one caretaker, they aren't manned for rescue. Part of the agreement we made with the Coast Guard was that we would provide eight firefighters to augment the Governor's Island fire department. They are providing structural firefighting capability for the occupied buildings there," said Evans.

Major Evans said civil engineer and services personnel will perform support functions on the island for as long as the operation lasts. "We're thinking it will last from six to 12 months, and we're looking at a steady population of about 1,100 Guard troops," he said.

Meanwhile, workers and volunteers continue in their unlikely task of securing and clearing a "war zone" on American soil.

"It was a valuable experience for our people because it was the closest you could get to war, in the sense of not actually fighting it but feeling the effects of it," said Figueroa. "Especially because it was in our homeland, there was a lot of stress and what we call combat fatigue, even though we weren't in combat. The adrenalin and the tension were so high that people didn't sleep well. There were a lot of obstacles to overcome, but we did our best."

A Life-Saving Mission

by Maj Richard C. Sater
514th Air Mobility Wing Public Affairs

By saving another's life, he saved his own.

SSgt Tyree Bacon is well aware that his story hinges on one of those ironic twists of fate. It is no less unfathomable than the rest of Sept. 11, 2001.

The New York native is a firefighter with the 514th Civil Engineer Squadron, McGuire Air Force Base, NJ, on the weekends, but on the civilian side, he works for the state of New York as an officer assigned to the Supreme Court in Manhattan, about 10 blocks from the site of the World Trade Center. He's also trained as an emergency medical technician.

On the morning of Sept. 11, he recalls being in the locker room at the court building when "we heard a bang," he says. "I remember saying, as a joke, 'Oh, no! They took out the World Trade Center!'"

He and his co-workers climbed to the roof of the 18-story court building. They could see the smoke. Within minutes, he says, "we were mobilizing officers to respond. There were 10 of us. We figured it was an accident, and we were going to help out. Then we heard the second explosion as we were getting ready to go. We didn't know what it was."

In a court bus, Bacon and his co-workers headed toward the trade center, parking about two blocks away. Both towers were in flames, the air already thick with smoke and debris. "Just utter chaos," he says. "Airplane wreckage in the street." He pauses a moment. "People jumping from the towers."

Bacon and his co-workers looked for an emergency medical station. There was none yet. They grabbed medical bags from the bus and headed downstairs under Building 5 of the trade center complex, into the mall one level below the street, looking for the injured.

One was a woman with burns over 60 percent of her body. Bacon told his co-workers he would stay and assist her; and they continued on deeper into the mall. Bacon managed to find a wheelchair and was making his way to the stairs with the woman when the first tower collapsed, sending a shock wave through the whole area as the walls came tumbling down.

"I thought it was a bomb. I couldn't breathe. Couldn't see," he says. "I was feeling my way around." His small flashlight didn't help much; the woman he'd been assisting was screaming — in fear and in pain. "She kept saying 'Don't leave me!'" he recalls.

He managed, somehow, to navigate the darkness and the debris with his patient and stepped outside into a changed landscape. In the immediate aftermath, he remembers dead silence. Everywhere, the ground seemed covered with ash, but he realized it was pulverized concrete, and then the whole world started screaming.

"I've never experienced war before in my life," he says, "but I've seen hell."

He found a triage area that had been set up not far from the site and delivered his patient. He's uncertain of her fate, given the severity of her burns, but he is certain of this: "If I didn't save her life, she saved mine." The three co-workers who had gone further into Building 5 with him are still listed among the missing.

The second tower collapsed. Bacon and his remaining co-workers made their way back to the courthouse for a roll call and then headed back to the trade center site to search for the missing. They would return several times during the week on the same mission.

Revisiting the day troubles him — especially the "why." "It was meant to instill fear in us. They [the terrorists] didn't count on us to unite the way we did. We've pulled together. But it's a shame that we need a tragedy to unite us."

His emotions are mixed — hope, anger, sadness. "This happened in my own back yard," he says. "New York is my home." He pauses. "I don't think it will ever be the same as it was."

SSgt Tyree Bacon, 514th CES, checks an air pack at the McGuire AFB flightline fire station. Sergeant Bacon was one of many Air Force reservists who responded to the World Trade Center attack in New York City in their civilian jobs as firefighters, law enforcement officers and others. *(Photo by Maj Richard C. Sater)*

RED HORSE Rides into Idaho for Heavy Repairs

by 1Lt Kevin J. Osborne
819th RHS

The 819th RED HORSE Squadron from Malmstrom Air Force Base, MT, was on the move again this summer — headed to the high deserts of Idaho to improve the strategic and tactical mission capabilities of the 366th Composite Air Expeditionary Wing at Mountain Home AFB.

Already in fiscal year 2001 the 819th RHS had been to the far reaches of the world, making a name for itself in Japan, Korea and Saudi Arabia. Then, this first-ever active-duty/Air National Guard RED HORSE squadron turned stateside and tackled California, Louisiana, Missouri and New Mexico. The squadron's Idaho tasking was to accomplish four projects totaling almost $840,000.

Showdown at the Sagebrush Inn

First to move in was the RED HORSE electrical team. Their mission: remove the existing overhead electrical distribution system and street lighting along Falcon Street in front of the Sagebrush Inn, extend 3,000 linear feet of underground electrical primary cable around base lodging, install one 150 KVA pad-mounted transformer and three sectionalizers, and improve street lighting by placing seven street poles along a main thoroughfare — all while staying under a total cost of $236,000.

"This was no small task," said TSgt Steven Silveous, project manager for this RED HORSE outfit. "Due to the manpower available back home, and the deadline of finishing before the end of the fiscal year, we had our hands full coming into this one."

Not only was the existing utility pole system deteriorating and in need of replacement, but heavy tree growth along the street increased maintenance and repair costs. This, along with concern for the safety of base personnel, made an underground electrical system and improved lighting highly desirable.

"I love being in the HORSE and taking on new challenges in this line of duty," said TSgt Joseph Halter, lead craftsmen for this project. "Seeing a project completed from cradle-to-grave — now that's job satisfaction!"

Rocks Begin to Roll

As the electrical project was kicking off, the airfields team was setting up camp as well. Their mission: demolish the old asphalt pavement between the 1300 series hangars and place a new portland cement concrete pavement to be used jointly by the KC-135 and F-15 models, while staying under a budget of $447,000.

Mr. Joe Yatzan, chief of pavements and equipment at Mountain Home AFB for more than 35 years, noted the nose dock islands had recently required constant sweeping, resulting in higher maintenance costs.

"The islands had deteriorated over the years," said MSgt Theodore Baker, project manager. "Something needed to be done to control the foreign object damage (FOD) that is costing our Air Force millions in repairs each year."

A challenge this team faced was the soaring temperatures typical of a summer day in a desert climate. With the thermometer boiling into the 100s and the heat index rising above 120 degrees Fahrenheit, TSgt John Rowland knew his team would not last long and that safety would become an issue. Being the lead craftsman and having more than 11 years of experience in two different RED HORSE squadrons, Sergeant Rowland suggested his crew pull the graveyard shift, working from midnight to noon. "This enabled me to teach the young airmen how to accomplish a full depth repair properly while maintaining a safe environment at all times," he said. The go ahead was given, and after placing over 820 CYs (cubic yards) of concrete and 1,180 CYs of base course, Sergeant Rowland had the project wrapped up two weeks earlier than expected.

Meanwhile, a smaller team of four individual sharp shooters moved in on a project to ensure the safety of the

391st Fighter Squadron and their F-15E Strike Eagles. Mission: Rebuild and repave the asphalt shoulders on the east end of Alpha Ramp according to U.S. Air Force specifications. This was to be accomplished with a budget of just $105,000.

TSgt Rick Varela, lead craftsman and Horseman for nine years, did not have a full team, but he rose to the challenge and within three weeks had the project completed to base and USAF satisfaction.

Twilight on the Trail

Not long after wiping the sweat from their brows, the four Horsemen from the shoulder project moved on to grade and build what would be their biggest challenge yet: constructing a parking lot for airmen in the 389th FS while staying within a total budget of $50,000.

Parking was extremely limited around this F-16 fighter squadron. The area to be paved was a dirt field already being used by the squadron for parking, but it was unpaved, unsightly and causing wear and tear on vehicles. Paving this area provided standardized parking in accordance with wing standards and improved the immediate area.

A1C Lloyd Burke said team members worked so well together they got ahead of themselves and had to slow down until the slip form paver arrived to accomplish the curb and gutters. Needless to say, there were some mighty happy airmen in the 389th FS when they were finally able to park in a paved lot.

Lt Col Richard Stonestreet, 366th Civil Engineer Squadron commander, fully identified the need for these four projects in fiscal year 2000, and garnered support and direct funding from Headquarters Air Combat Command in fiscal year 2001. "This base is taking the right steps in rebuilding its infrastructure to better support the mission and the troops," Colonel Stonestreet said. "This training will not only benefit the 366th FW by providing them with improved infrastructure, but also will improve the wartime mission readiness of members of the 819th RED HORSE."

Back in the Saddle Again

The services of the 819th were called upon one last time before they packed up and headed out. This time, for an emergency runway repair after a B-1 Lancer from the 34th Bomb Squadron ripped up a 1,400 square foot section of asphalt on the overrun after engine run-up, right before taking off. The runway's bi-directional capabilities were closed and NOTAMs (Notice to Airmen) posted until the Horsemen could perform their duty. Members of Mountain Home's 366th CES Pavements and Equipment Flight and the RED HORSE asphalt paving crew responded to the tasking and enabled the 366th FW to continue its mission to "Fly, Fight and Win."

These projects were completed by the end of the fiscal year, just in time for these young airmen to gear up for their next mission. To the HORSE!

TSgt Rick Varela instructs A1C Jonathan Douglas on how to operate the grader. ***(819th RHS photos)***

SSgt Steven Shook, SSgt Allen Schmelzer and A1C Nathan Laidlaw place concrete which will upgrade the apron for the KC–135 and F–15Es.

A1C Anthony Fletcher works on finishing the edges after a concrete pour on the nose dock apron.

TSgt Steven Silveous prepares a trench across the Airmen Leadership School parking lot for the primary electrical line to be placed later that day.

TSgt Joseph Halter and SrA David Fisher prepare to pull primary electrical cable over a 400-foot span.

1Lt Kevin J. Osborne is an 819th RED HORSE Squadron civil project engineer and was commander of the deployed team.

Meeting the Challenge

CE innovation aids recovery efforts at aircraft crash site

by Terri Bracher
45th CES

The 45th Civil Engineer Squadron's "Can Do, Will Do" motto was put to the test this summer when tragedy struck near home at Patrick Air Force Base, FL.

45th CES members were called to action May 29 when Navy pilot Cmdr David Casher's F-18 crashed in Ft. Pierce, FL. The commander was on a routine training mission from Oceana Naval Air Station, VA, to Key West NAS, FL, when the fatal crash occurred.

The Navy and Air Force came together in a massive search and recovery effort under a bright and sunny Florida sky in a barren field on the V-Bar 2 Ranch, about 70 miles south of Patrick AFB. As Patrick was the closest military installation to the site, 45th CES troops were among the first to arrive on scene as Disaster Preparedness, Search and Recovery (SAR), the Disaster Control Group and mobile command post were all set in motion.

Navy, 45th CES and other 45th Space Wing personnel sift the large pieces of the wreckage by machine. *(Photos by Terri Bracher)*

45th CES troops went to work side-by-side with Navy personnel, contractors and other Air Force organizations from Patrick. This is where all their training paid off. CES troops immediately brought in heavy equipment and began to build roads and bridges, clear trees and erect tents for work areas and food and water. They set up generators for power, communications, air conditioning and pumps, and provided initial fire rescue support. CES personnel also manned a 24-hour, 7-day a week mobile command post.

While all this is "standard operating procedure" when a crisis hits, what happened next was not.

"This was a unique plane crash. It was very localized. It wasn't spread over acres and acres of land," said Lt Col Randy Horn, Det 1, 45th Support Group Commander and one of the on-scene commanders at the site.

Larry Hornback, the services Combat Support Flight chief and SAR team chief for this operation, directed the SAR advance team to the site to assess conditions. Within 24 hours the team, led by 2Lt Sergio Rios, chief, Plans and Force Management, had photographic evidence that outlined the unique challenges facing them.

After reviewing the photographs and getting a first-hand account from Lieutenant Rios, Hornback quickly assessed the situation. He realized the extremely sandy soil and overall nature of the crash would require extensive sifting of massive amounts of dirt. Although a shaking machine was available to find larger pieces, the soil would have to be resifted, by hand, for smaller items.

"Sifting to this degree is a relatively new thing. There was no hand sifting equipment available in the Air Force's or U.S. military's inventory," said Hornback. "That's when the 45th Civil Engineer Squadron rose to the challenge. I gave the concept of what was needed to the 45th civil engineer folks and they came through. They're awesome."

TSgt Robert Erb, in the structures shop, received the call and asked all the right questions. At the time, all he really knew was that four hand sifters with stands were needed … and fast! With a rough concept already formulated, he checked the materials on hand and began construction.

"I knew they had to be fairly strong to sift a lot of dirt, with a sturdy stand and the ability to move around," said Erb. After building the initial sifter box and stand out of aluminum that was already in the shop, he used the wheels off roller tables, normally used to slide lumber for cutting, to complete the design.

After completing the first prototype himself, Sergeant Erb enlisted the aid of SrA Randall Kitchings, who procured necessary materials. Erb and Kitchings, along with other shop personnel, fabricated three more stands and delivered them to the crash site within two days of the accident.

"The final product was not exactly the way I originally designed it. I would have liked to have made modifications to make them better, but they just needed them too fast," said Erb.

"The 45th CE troops came up with the sifting tables

and they are just phenomenal," said Cmdr James O. Stutz, the Navy investigation team leader.

So phenomenal in fact, that within hours of first using the sifters, Erb received a second request on Saturday afternoon at 2:30 p.m. for another six units. With the help of SSgt Herbert McCoy, the two worked straight through the night and completed the additional six units at 3:45 a.m.

Ultimately, two-person crews sifted more than 40 tons of soil in just 13 days using 10 hand sifting stations for up to 10 hours a day.

"The sifters proved invaluable in locating smaller pieces of the aircraft wreckage to assist the accident investigation board," said Hornback.

Not only were 45th Space Wing services personnel impressed by the design, but it also amazed the Navy, Office of Armed Forces medical examiners and Air Force Services Agency morticians.

"Whenever I needed something for my team, all I had to do was call CES over the radio and it was done," said Rios. In the case of the sifters, the result could possibly be increased productivity and response capability for all Air Force emergency situations.

45th CES personnel designed and constructed several sifting tables to accommodate the large hand-sifting operation that was necessary after a Navy F-18 crashed about 70 miles from their base.

"The efforts of our CES partners were so great that we are providing the design and prototype model to the Air Force Institute of Technology for use in mortuary affairs training," said Hornback. "We will also brief the recovery operation to all the services commanders around the globe during the annual services conference. Our goal is to have this as a standardized stock item for all SAR teams."

Although this may have been just another day at work for Sergeant Erb, his willingness to go "the extra mile" and his "can do" attitude were definitely reflected during this crisis. His contribution to future search and recovery efforts may prove invaluable.

"I was proud to contribute in a big way without being at the actual crash site," said Erb. "I was overwhelmed when they told me they wanted to put this piece of equipment in the Air Force inventory for search and recovery."

"Without those sifters this operation would have been a nightmare and would have taken forever. CE is always there for their customers and they do it with class," said Hornback.

Terri Bracher is the public affairs representative for the 45th Civil Engineer Squadron Environmental Flight, Patrick AFB, FL.

Navy Aviation Electronics Technician, 3rd Class Joe Beltran and TSgt David Hooper, 45th SPTG, employ one of the newly designed and built hand sifters.

Colonel Rusty Gilbert is The Civil Engineer for Air Education and Training Command at Randolph Air Force Base, TX. In this interview with *Air Force Civil Engineer* magazine, Colonel Gilbert discusses current challenges for AETC civil engineers in their work on …

The "Training Flightline"

***AFCE*:** With the Air Force's new focus on recruiting, has there been a tremendous increase in the number of people entering basic military training? If so, has this resulted in a strain on facilities at training bases?

Colonel Gilbert: "Yes" to both questions. Let me explain. AETC's mission, quite simply, is to replenish the combat capability of the Air Force. This takes recruiting, training and educating. As you change the parameters in any one area, it has a "pig in the python" effect on facility infrastructure.

Facilities are critical to our mission areas. While everyone understands the relationship of airfields, operations facilities and hangars to flying, the corresponding relationship between dormitories, dining halls and classrooms — our training flightline — is either overlooked or dismissed as quality of life improvements that can wait. They're not. These are mission-critical facilities to this command and the Air Force.

Colonel Rusty Gilbert

The increased recruiting effort — both enlisted and officer — ramped up the number of recruiters from about 1,000 to a target of 1,650. This drove additional requirements for and upgrades to recruiting offices and had other rippling effects across the command. We have to bring an eighth recruit, housing and training dorm — a 1,000-person dormitory — back into service. We have to complete the officer training campus at Maxwell AFB, AL. We're four dormitories short of capacity for technical training requirements after basic military training. This shortage drives triple bunking at some of our bases, forces permanent party dorm residents off base and likewise sends students who are TDY to school downtown.

How are we addressing this challenge? Just like any major command (MAJCOM) — we fight for the resources at the corporate table; we plan and execute every dollar we can beg, borrow, or steal; and we never miss an opportunity to showcase the good, the bad and the ugly.

***AFCE*:** Since student living conditions are a key concern on AETC installations, what role did your staff play in ensuring support for student dorms in the Air Force Dormitory Master Plan?

Colonel Gilbert: The Air Force Dormitory Master Plan (DMP), I think, is a great corporate success story. It puts everyone on a more level playing field. With each iteration of the plan, the Air Force refines its focus to make sure we buy the right things.

We were successful in getting more focus on pipeline dormitories, from the standpoint of capacity and condition. Pipeline dormitories are to training what runways are to the Combat Air Forces. So, the four dorms we're short of capacity will get funded through the DMP. Twelve of our 24 pipeline dorms that need to be replaced — not renovated, they're that bad — will be replaced. But now, here's the quandary. Can we hold out until then, and what do we do with the other 12 that aren't "funded" for renovations or replacement in the DMP?

When our boss, Gen Hal Hornburg (AETC commander), returned from his first visit to Lackland AFB, TX — we had forewarned him of what he was going to see — he said, "While we may not be proud of all our facilities, we're not going to be ashamed of them. The dormitory I went through is not fit to live in. Do something." So, we asked him, "Boss, are you going to make us 'lipstick the pig,' or do what's required and shut it down?" We've closed that dormitory and are tearing it down. Our guidance to our wings is simple — when dorms are no longer fit to live in, don't. Show it to everyone. Money will come.

The last piece of dormitories is furnishings. We've been successful in the MAJCOM "food fight" for dollars — with a big push from Second Air Force — to buy over $20 million worth of replacement furnishings in the last two years. This is a lot of money, but it's just the tip of the iceberg because we still have almost $15 million more to buy over the next 3-5 years.

***AFCE*:** Because the services are required to implement joint training initiatives, many Air Force students train at

schools located on Army or Navy installations. Are you also involved in providing facilities and accommodations for those students?

Colonel Gilbert: Civil Engineer Interservice Training Review Organization (ITRO) training happens at Goodfellow and Sheppard AFBs, TX; Fort Leonard Wood, MO; and Gulfport, MS. Under ITRO, the host is responsible for facilities and accommodations unless there is a service-specific training requirement. The rub always comes when there is a difference in facility standards and expectations — and it works both ways. The Air Force is not the only service short of facility dollars compared to requirements. Our leadership works many of these issues, and sometimes there is an opportunity to partner and leverage the funding available, including drumming up donations from other MAJCOMs and the other Services.

We recently made some quantum improvements for equipment operators at Fort Leonard Wood through the energy of the 366th Training Squadron, Det. 7, and generous contributions from Maj Gen [Earnest O.] Robbins and the MAJCOM Civil Engineers, and the combined execution by the Total Force RED HORSE and Prime BEEF teams. But, there's still more to do, especially in the dormitories. We focus on building a plan, getting buy-in, and then executing at every opportunity.

AFCE: What types of challenges do AETC engineers face in making sure pavements and operational facilities are up to par for the undergraduate pilot training program?

Colonel Gilbert: We fly the heck out of our airfields — almost 70,000 sorties per year at Laughlin AFB, TX, for example.

We started several years ago doing complete pavement condition surveys of all our bases, and this is now done. What many folks do not realize is that most of our flying-training bases have multiple runways as well as auxiliary airfields. We ran our engineering results past the operators, the fliers, to get their operational risk assessment. We are now putting the final touches on a Pavement Master Plan so that we know where to put the dollars to get the most bang for the buck — almost $200 million worth of requirements.

We have, like most other MAJCOMs, a Facility Examination Team that also looks at base and airfield supporting infrastructure. We are also developing a standard for squadron operations facilities — where there isn't already an existing standard — so that when we get an opportunity to replace our inadequate facilities, we do it smartly.

AFCE: AETC stepped out as a leader in the housing privatization arena with the first successful Department of Defense privatization effort at Lackland. Do you have other housing privatization efforts on the horizon?

Colonel Gilbert: The Lackland project is finished — 420 units — and by almost all measures is a success story. In the Air Force Family Housing Master Plan, our next privatization effort — already in progress — is at Little Rock AFB, AR, followed by Altus AFB, OK, another Lackland project, and down the road perhaps portions of Maxwell. We are trying to pull off another first with a public-private partnership with the City of San Angelo to meet the housing requirements at Goodfellow.

On privatization, I'm sure you're aware, there is some skepticism. Clearly there is more to learn as the process matures, and a lot of education that has to happen. For it to be a real success, it has to be transparent to the member who's living in it. Privatization will be successful where the conditions are right — I view it as just another tool in the toolbox.

AFCE: AETC has also been heavily involved in the A-76 competitive sourcing initiative, more so than the other major commands. How is this affecting the military and civilian members of your civil engineer squadrons?

Colonel Gilbert: From my perspective, A-76 is a four-letter word. This is a long and arduous process that has many unintended consequences, nuances and broken glass. Sometimes I hear that people don't want to come to an AETC base because there is no job or no future, and this is disappointing. Nothing could be further from the truth. For a commander or a member of these units, it is a leadership challenge of the highest magnitude. Why? As soon as you start the A-76 process, a large portion of the civilian workforce leaves if there is another job opportunity. For those who stay, part are sequestered to prepare the government's bid for the contract, and the remaining military and civilians have to shoulder the entire workload. You can't hire permanent replacements for vacancies, and the end date keeps moving to the right. This command and the Air Force owe those who have shouldered this burden tremendous gratitude for

AETC is much larger than most people realize. The command encompasses Air Force Recruiting Service, two numbered air forces, and Air University, which includes the Air Force Institute of Technology. AETC also has specialized training detachments at 44 locations around the world, including space and missile training at Vandenberg AFB, CA; special operations training at Kirtland AFB, NM; and survival training at Fairchild AFB, WA.

their professionalism and dedication. But, hey … would you expect anything less from a civil engineer?

Our approach to A-76 in AETC is different from most of the other MAJCOMs. We do not plan to piecemeal our CE squadrons or Base Operating Support (BOS). We've already done this with part of our Ops Flights at Goodfellow, Laughlin, Tyndall AFB, FL, and Columbus AFB, MS. While these are working great — be it a contractor or a civil service Most Efficient Organization — we felt there was a better way to do it. We've had an entire base, Vance AFB, OK, successfully operated by a contractor for well over 20 years.

Our current efforts target five major installations — Maxwell, Lackland, Sheppard, Randolph and Keesler AFBs — where we are competing the entire civil engineer squadron with the exception of the fire department and EOD (explosive ordnance disposal).

So, when it's all said and done, we will continue to have tremendous opportunities at Little Rock, Altus and Luke AFB, AZ — our keeper CE squadrons — and our hybrid squadrons at Goodfellow, Laughlin, Columbus and Tyndall.

AFCE: In the utilities privatization process, you have five "Pathfinder" bases in AETC. How successful has the program been so far? Do you expect benefits to accrue for AETC bases?

Colonel Gilbert: The bottom line is, it's really too early to tell. As far as our pathfinders in AETC, we don't group them as five bases — it's bigger than that. We have an effort at Maxwell, and then we have what we call the Texas Regional Demonstration Project (TRD), which incidentally includes more than just AETC bases in Texas — it also includes Dyess AFB, Ellington Air National Guard Base, Naval Air Station Joint Reserve Base Fort Worth (Navy Reserve) and Fort Bliss. All in all, we have 29 Air Force systems going through source selection right now — almost 65 percent of the Air Force's 45 Pathfinders. Will UP be a success? As I said, it's too early to tell. We'll have a better feel for it this spring and summer when we expect to award the TRD and Maxwell/Gunter efforts.

Under privatization, we expect costs to increase in the short term. In the long term, we expect improved reliability as the new owners make the capital improvements that are needed. Over the long haul, privatization must show an economic payback, or we don't privatize. Stay tuned.

A couple of comments on competitive sourcing and privatization efforts — these are "forever" decisions, that in many respects are equivalent to putting BOS on the "MasterCard Plan." We make the minimum payments and then keep paying forever as we go through recompetes, cost escalations and fixing disconnects. We have to recognize there is a difference between cost avoidance and cost savings, and we should not be claiming victory, beating our chests, and taking manpower and budget cuts before the event occurs. It would be nice if the savings that did occur were plowed back into those areas that generated them.

AFCE: Realignment of the former Kelly AFB, TX, concluded in July, with a sizeable part of the base incorporated into nearby Lackland. What type of impact does this have on your CE squadron at Lackland?

Colonel Gilbert: The realignment of Kelly has been a five-year process that has taken a whole lot of effort on the part of a lot of people both in and out of government. Today, Lackland has more than 24,000 people and, for the first time, a runway. We've got a long-term "Go West Plan" to move those portions of Air Force activities on the city side over to Lackland proper.

The CE squadron played a key role at a time when we also put A-76, privatized housing and utility privatization on them. As General Robbins once said, "the peacetime role of a MAJCOM headquarters is to simulate the enemy" and we have fulfilled this with oak leaf clusters. However, the CE squadron at Lackland has come through in Timex fashion — it took a licking and kept on ticking — again reflecting leadership challenges of the highest order.

I'm proud to be an Air Force member and being a civil engineer is just icing on the cake. We're extremely well served by our leadership, and the leadership coming behind is going to be even better. The engineers at Little Rock have a motto — "Engineers Carry the Load." To that, there's only one response — "HOOAH" .

AETC bases are all located in the southern tier: Altus and Vance in Oklahoma; Goodfellow, Lackland, Laughlin, Randolph and Sheppard in Texas; Columbus and Keesler in Mississippi; Maxwell in Alabama; Little Rock in Arkansas; Luke in Arizona; and Tyndall in Florida.

CE Magazine Fall 2001

Dedicated Instructors, Excellent Facilities

Pavements and Equipment School receives new training complex

by SSgt Simon Wess
366th TRS, Det. 7

The Air Force continues to show its full support to the training of tomorrow's airmen with the opening of a new Air Force training complex for the Pavements and Construction Equipment Operator Training Course (P&E) at Fort Leonard Wood, MO.

The opening of the new complex on September 11 concluded a three-year, 1.6 million-dollar project. The Air Force initially took control of the training site from the Army in October 1998. Since then, the members of the 366th Training Squadron, Detachment 7 have balanced their time between maintaining a full load of students and completing numerous self-help projects to improve the learning environment.

Demonstrating an emphasis on and commitment to quality training, Air Education and Training Command, the Air Force Civil Engineer Support Agency, Air Combat Command, Air Force Materiel Command, U.S. Air Forces in Europe, Pacific Air Forces, Air Force Special Operations Command, and Air Force Space Command provided the necessary funding for improvements at the schoolhouse.

Major construction began with the 820th RED HORSE Squadron, Nellis AFB, NV, constructing a Pre-Engineered Building (PEB) that increased classroom size from 200 square-foot rooms to new 460 square-foot rooms, complete with much needed central heat and air conditioning. The team of engineers also completed a major electrical upgrade to the site.

Working alongside the 820th, teams from throughout AETC chipped in with the erection of a safety observation tower for instructors as well as a sunshade and warm-up building for the students. Following on the heels of the 820th, the 819th RHS, Malmstrom AFB, MT, constructed a 45 by 110-foot Ultimate Building for a much needed equipment maintenance and inspection facility. The Malmstrom engineers also upgraded a water main, which will eventually supply running water to the Interservice Training site for crawler tractor training.

The final phase of the project was completed by the 823rd RHS, Hurlburt Field, FL, and the 307th RHS, Barksdale AFB, LA. Together they constructed an 80 by 200-foot super K-Span to allow backhoe and dump truck training to continue in even the worst weather. All of the teams worked exceptionally hard to meet a planned September 11 grand opening.

The desire to produce highly trained airmen is evident throughout the Detachment on Fort Leonard Wood. SSgt Michael Lawrence, a P&E instructor, noted, "Four hundred and seventy-five future engineers will leave tech school from here this year and go home to do recruiters assistance. I want them to leave here with a feel for how the Air Force really is. I don't want their only impression of the Air Force to be run-down facilities or equipment, or to feel like they are not part of a team. I want them to know they are part of something special."

With the dedicated team of instructors and the quality-training complex now opened, the equipment operators of tomorrow are sure to be some of the best airmen the civil engineer world has ever seen.

SSgt Simon Wess is a pavements and construction equipment operator instructor for the 366th TRS, Det. 7, Ft. Leonard Wood, MO.

The new 366th TRS, Det. 7 training complex is the handiwork of several different civil engineer units. Shown here is the pre-engineered classroom building *(left, rear)*, the 45' by 110' Ultimate Building *(right, rear)*, and the 80' by 200' Super K-Span building at the halfway mark in construction *(left, front)*. *(Photo courtesy 366th TRS, Det. 7)*

Editor's Note: Maj Gen Earnest O. Robins II, the Air Force Civil Engineer, and several other key leaders and contributors were present to participate in the official opening of the facilities. However, the formal ribbon cutting ceremony was canceled due to the tragic events of September 11, 2001.

For more information on activities and personnel at the 366th TRS, Det. 7, visit their web site at www.wood.army.mil/det7/index.htm.

Continuing Education

AFIT
Civil Engineer and Services School

Course No.	Title	Off	Start Date	Grad Date
ENV 220 (S)	Unit Environmental Coordinator	02A	07-Jan-02	11-Jan-02
ENV 020 (S)	Env. Compliance Assessment	02B	14-Jan-02	16-Jan-02
Sat Seminar	ECAMP Team Chiefs	02B	17-Jan-02	17-Jan-02
Sat Seminar	Stormwater Seminar	02A	18-Jan-02	18-Jan-02
MGT 484	Reserve Forces Air Base Combat Eng.	02A	22-Jan-02	01-Feb-02
MGT 585	Contingency Engineer Command Course	02A	28-Jan-02	01-Feb-02
ENV 021	Intro. to Env. Restoration Program	02A	04-Feb-02	08-Feb-02
ENV 521 (S)	Hazardous Waste Mgmt.	02A	04-Feb-02	08-Feb-02
MGT 101	Intro. to Base Civil Engineer Org.	02B	04-Feb-02	30-Mar-02
ENV 417	Env. Restoration Project Mgmt.	02A	11-Feb-02	15-Feb-02
Sat Seminar	HAZWOPER Refresher	02C	20-Feb-02	20-Feb-02
Sat Seminar	HAZWOPER Refresher	02D	21-Feb-02	21-Feb-02
ENG 555 (S)	Airfield Pavement Construction Inspection	02A	25-Feb-02	01-Mar-02
ENV 531	Air Quality Mgmt.	02B	25-Feb-02	01-Mar-02
MGT 421 (S)	Contracting for Civil Engineering	02A	04-Mar-02	15-Mar-02
ENV 419	Env. Planning, Prog. & Budgeting	02B	05-Mar-02	07-Mar-02
MGT 445	Housing Privatization	02A	18-Mar-02	22-Mar-02
ENV 222 (S)	Hazardous Material Mgmt. Prog.	02B	20-Mar-02	22-Mar-02
ENV 220 (S)	Unit Environmental Coordinator	02B	25-Mar-02	29-Mar-02

Registration for resident courses, which are offered at Wright-Patterson AFB, OH, begins approximately 90 days in advance. Applications must go through the student's MAJCOM Training Manager. Registration for the satellite offerings, marked with an (S), closes 40 days before broadcast. For satellite registration, course information, or a current list of class dates, visit the CESS website at: http://cess.afit.edu.

366 Training Squadron

Sheppard AFB

Course No./Title	Start Dates	Grad Dates
J3AZR3E051-010/Bare Base Electrical Systems	04-Feb/21-Feb/11-Mar/27-Mar	15-Feb/06 Mar/22 Mar/09 Apr
J3AZR3E051-013/Intrusion Detection Alarm Sys.	06-Feb	27-Feb
J3AZR3E051-012/Fire Alarm Systems	07-Jan/05-Feb/05-Mar	31-Jan/01 Mar/28 Mar
J3AZR3E071-001/CE Adv. Elec. Troubleshooting	07-Jan/05-Feb/06-Mar	04-Feb/05-Mar/12 Apr
J3AZR3E051-008/Electrical Sys.Distribution Maint.	09-Jan/13-Feb/18-Mar	06 -Feb/13 Mar/12Apr
J3AZR3E051-003/Cathodic Protection	07-Jan/24-Jan/13-Feb/ 04-Mar/25-Mar	18-Jan/06-Feb/27-Feb/ 15-Mar/5-Apr
J3AZR3E051-016/High Volt. Cable Testing & Splicing (Tentative)	15-Jan/29-Jan/12-Feb/ 26-Feb/12-Mar/26-Mar	25-Jan/07-Feb/22-Feb/ 07-Mar/21-Mar/04-Apr
J3AZR3E051-007/Airfield Lighting	08-Jan/05-Mar/19-Mar	17-Jan/14-Mar/28-Mar
J3AZR3E472-000/Liq. Fuels Stor. Tank Entry Spvsr.	11-Mar/25-Mar	21-Mar/04-Apr
J3AZR3E472-001/Liq. Fuel Sys. Maintenance Tech.	04-Feb	15-Feb
J3AZR3E453-003/Pest Management Certification	04-Feb	04-Mar
J3ARR3E453-002/Pest Mgmt. Re-Certification	14-Jan/04-Mar/25-Mar/10-Dec-01	18-Jan/8-Mar/29-Mar/14-Dec-01
J3AZR3E451-004/Fire Suppression Systems Maint.	04-Jan/28-Jan/20-Feb/18-Mar	25-Jan/15-Feb/12-Mar/05-Apr
J3AZR3E471-101/Bare Base Water Purification & Distribution Systems Maintenance	09-Jan/06-Feb/20-Feb/20-Mar	18-Jan/15-Feb/01-Mar/29-Mar
J3AZR3E052-013/CE Advanced Electronics	07-Jan/25-Feb	04-Feb/22-Mar
J3AZR3E072-002/Troubleshoot. Elec. Pwr. Gen. Eq.	07-Jan/04-Feb/04-Mar/28-Mar	29-Jan/26-Feb/25-Mar/18-Apr
J3AZR3E072-113/Bare Base Power Generation	07-Jan	31-Jan
J3AZR3E151-013/HVAC/R Control Systems	07-Jan/20-Feb/27-Mar	11-Feb/26-Mar/30-Apr
J3AZR3E151-014/HVAC/R Direct Expansion Sys.	07-Jan/11-Feb/18-Mar	07-Feb/14-Mar/17-Apr
J3AZR3E151-015/HVAC/R Indirect Expansion Sys.	07-Jan/11-Feb/04-Mar/26-Mar	25-Jan/01-Mar/21-Mar/12-Apr
J3AZR3E050-001/CE Work Estimating	07-Jan	28-Jan

Ft Leonard Wood

J3AZP3E571-005/Construction Materials Testing	22-Jan/19-Feb/18-Mar	01-Feb/01-Mar/28-Mar
J3AZP3E571-003/Engineering Design	04-Mar/01-Apr	15-Mar/12-Apr
J3AZP3E971-003/Advanced Readiness	07-Jan/25-Feb/25-Mar	11-Jan/01-Mar/29-Mar

Gulfport, MS

J3AZP3E351-001/Low Slope Maintenance & Repair	28-Jan/25-Feb/18-Mar	07-Feb/07-Mar/28-Mar
J3AZP3E351-002/Fabrication Welded Pipe Joints	07-Jan/04-Feb/04-Mar	18-Jan/15-Feb/15-Mar
J3AZP3E351-003/Metals Layout Fab. & Welding	14-Jan/11-Feb/18-Feb	01-Feb/01-Mar/04-Apr

Additional course information is available on the 366th TRS web site at https://webi.sheppard.af.mil/366trs/default.htm. Students may enroll on a space-available basis up until class start date by contacting their unit training manager.

Sign Me Up!

Interested in a technical training slot? Here is a brief description of the process used to fill class seats.

MAJCOM identification/validation of requirements: Major command functional managers conduct annual screenings at their base level units to identify and validate training requirements. Requirements are usually established two years in advance for budgeting purposes. Based on the mission impact, training is categorized as: Level 1- Mission Essential, Level 2- Critical Mission Impairment, or Level 3- Deficiencies in Mission Support. Units determine the level of training required based on mission impact if the training is not received. Historically, Air Education and Training Command has funded all Level 1 requirements. Level 2 and 3 requirements are funded by the individual units. AETC training managers schedule requirements using the same priorities.

Who fills seats: In most instances, MAJCOM training functionals allocate the number of seats by course to individual units after the requirements have been validated by AETC training managers and programmed into individual classes.

Enrollment: After a unit has received its allocations for the fiscal year, they are responsible for providing names to their respective unit training managers, who in turn forward the names to the MAJCOM Directorate of Personnel (DP) office. DP enters names into the Air Force Military Personnel Data System Modernization program, or MilMod, (formally Air Force Training Management System) which flows the information into the Technical Training Management System and ultimately produces class rosters.

What happens to unfilled seats: Allocations that are not filled within 30 days prior to the class start date become available to any MAJCOM that may have out-of-cycle requirements. If the unfilled seat is an AETC-funded allocation, then the money budgeted for that training is lost unless the MAJCOM functional re-allocates the seat. AETC-funded allocations should *never* go unfilled. Class registration is not limited to a defined time before the class start date. If there are seats available, and the unit can get the individual orders and to the school on time, we'll take them.

What happens when students don't show: There are times when students are listed on class start rosters but fail to show up for class. This happens most often due to circumstances beyond the student's control; however, the downside to no-shows is that the minimum number of students required to perform hands-on training as a team to meet performance objectives is not there. When this happens, instructors must often be used to make up the shortage, which pulls them from other classes or course development.

Education Training Course Announcements (ETCA): The ETCA replaced AFCAT 36-2223, USAF Formal Schools, and provides all the same information on the web. Information includes course descriptions, reporting instructions, billeting arrangements and messing facilities availability. Once you reach the web site, if you know the location of the training, just select the base and all the courses conducted at that base will be displayed. The ETCA site is http://hq2af.keesler.af.mil/etca.htm. *(366th Training Squadron)*

New Fire Academy Courses for 2002

Instructors at the Louis F. Garland Department of Defense Fire Academy, Goodfellow Air Force Base, TX, have developed five new courses for DoD firefighters. Fire Inspector III (X3AZR3E771 022), Fire Officer III (X3AZR3E771 023) and Fire Officer IV (X3AZR3E771 024) will be offered in January 2002. Rescue Technician II (X3AZR3E751 019) and Weapons of Mass Destruction-Technician and Incident Commander (X3AZR3E771 025) will be offered in July 2002.

Of the existing Fire Academy courses, Fire Protection Apprentice (X3ABR3E731 006), Fire Inspector I (X3AZR3E771 020), Fire Inspector II (X3AZR3E771 021), Fire Officer II (X3AZR3E771 019) and Fire Marshal (X3OZR32E4 000) will be offered in the coming months; however, the Rescue Technician (X3AZR3E751 018), Hazardous Materials Train-the-Trainer Course (X3AZR3E771 018) and Hazardous Materials (HazMat) Awareness Train-the-Trainer (X3AZR3E951 000) courses will not be offered from January through May due to curriculum development associated with Rescue Tech II and HazMat WMD.

For more information on obtaining an in-residence training slot at the Fire Academy, please contact your unit training officer. For information pertaining to course material, visit the Fire Academy's web site at http://web1.goodfellow.af.mil/~trs312/newfire/index.htm. *(312th Training Squadron Fire Training Flight)*

More than 5,000 students report annually to the Silver Flag Exercise Site on Tyndall Air Force Base, FL, where they receive world-class contingency training on equipment and assets not available at technical training schools or home station.

CE Troops Wave the Silver Flag

by SSgt Faith Kassan
315th Airlift Wing Public Affairs

It's 5:55 a.m. and the sun is just peeking over the horizon to begin a beautiful day for most of Tyndall Air Force Base, FL, but for others it's the start of a grueling deployment to the fictional country of Oceania, where it is necessary to ensure Tango AFB is operational and ready for action.

Approximately 150 Air Force members, including 57 reservists from the 315th Civil Engineer Squadron, Charleston AFB, SC, recently took part in contingency training at Tyndall's Silver Flag Exercise Site July 15-20.

Silver Flag provides combat support training for active duty, Air Force Reserve and Air National Guard mobility-tasked civil engineer and services personnel, known as Prime BEEF (Prime Base Engineer Emergency Force) and Prime RIBS (Readiness in Base Services) teams. Civil engineers' peacetime duties differ greatly from their wartime and contingency responsibilities. This training offers challenging scenarios under realistic field conditions to ensure proficiency during real-world operations.

"This training mirrors what civil engineer personnel may encounter when deploying," said SMSgt Frank Tennant, chief of mission support for Det. 1, 823rd RED HORSE Squadron, which oversees the Silver Flag site.

"The goal of participants is to get an airfield set up and operational under a contingency situation," said Tennant.

The training begins with extensive classroom sessions on many of the 160-180 tasks participants will be required to perform during the field training portion, known as Exercise Silver Spear. Taskings include repairing several runway craters, responding to in-flight emergencies, crash rescues, fire suppression, water purification, chemical weapon detection and explosive ordnance disposal operations.

"Everybody came together to form one team," said SrA Joseph Weisz, a heating, ventilation and air conditioning (HVAC) technician with the 315th CES. "It was a great experience to work with people from other units," he said while making repairs to an air conditioning unit.

SSgt Robert Gomez, 315th CES, rescues a crash mannequin from a smoke-filled UH-1 helicopter during a contingency training exercise. *(Photos by Debra Baldwin)*

More than 30 members from the 75th CES, Hill AFB, UT, also deployed to Silver Flag, as well as personnel from Langley AFB, VA; Barksdale AFB, LA; Eglin AFB, FL; and Whiteman AFB, MT.

The Silver Flag program also enables participants to perform tasks and use equipment they may not have at home station.

"This exercise is a great way to refresh and refine my expertise and skills on equipment I don't get to use on a regular basis," said TSgt Larry Craven, 315th CES readiness technician, as he performed a functional check on an M22 Automatic Chemical Agent Alarm (a piece of equipment used to detect hazardous chemicals). "I would not be able to get this kind of hands-on training at home," he said.

Because of the high number of tasks needing completion, many participants receive training in areas outside their assigned CE specialty.

"Silver Flag helped us see the 'big picture' of what would happen if we deployed," said Lt Col Joseph Roy, 315th CES commander. "When you understand the big picture you realize that just because you've completed your job, it doesn't mean there's no more work to be done. There's always someone who can use your help in a contingency situation like this."

Critical CE personnel are required to participate in Silver Flag training regularly — every 30 months for active duty and every 45 months for Reserve and Guard — to maintain job proficiency and receive training on new equipment.

"This is the most realistic training available to civil engineer personnel without deploying out of the country," said Maj Jani McCreary, Det. 1, 823rd RHS commander. "Our claim to fame is the realism of the training."

Editor's Note: This story was originally published in the *Palmetto Airlifter*.

Students repair runway craters as part of contingency training at the Det. 1, 823rd RHS Silver Flag Exercise Site.

Silver Flag students position a billeting tent during the field exercise portion of their training.

The Det. 1, 823rd RED HORSE Squadron cadre train about 5,500 students each year at the Silver Flag Exercise Site, including civil engineers, services and chaplains/chaplain assistants. They have also added training for PERSCO (Personnel Support for Contingency Operations) this year — the first class began in October. For more details on Silver Flag training, including Air Force Specialty Code-specific information and pre-deployment guides, visit the Det. 1, 823rd RHS web site at https://www.silverflag.tyndall.af.mil.

Views from the Field

Commentary on Issues Affecting Air Force Civil Engineering

A Student's Perspective of AFIT

by Capt Lance D. Clark
36th CES

Being the third generation of my family to roam the hallowed halls of the Air Force Institute of Technology (AFIT), I thought I had a pretty good idea of what AFIT was and what it entailed. Among other things, I knew that it was a way to obtain my graduate degree full time, while not being burdened by additional duties. I soon discovered that this was the only accurate perception of AFIT that I possessed.

The Graduate Engineering and Environmental Management (GEEM) class of 01M (March 2001) was comprised of 23 military officers: 21 U.S. Air Force civil engineers, one bioenvironmental engineer and one U.S. Marine. Each of us completed at least 72 hours of course and thesis work during a rigorous 18-month program. By contrast, graduate programs offered at civilian institutions usually transpire over a two-year period and only require an average of 36 hours of coursework; many of these don't require a thesis either.

After a reintroduction to the undergraduate material we had forgotten, it became readily apparent that AFIT would be no cakewalk (the first mistake I made). Most of us learned and relearned this lesson several times over the course of our 18-month tenure at Wright-Patterson Air Force Base. However, AFIT did not over-burden our class either. When not working on theses or doing research, three officers obtained their Professional Engineer's (PE) License, two received their Engineer in Training (EIT) certification, two got married (not to each other), three had their first child (one even had twins), and another was pregnant with her second child.

The second misconception I had of the AFIT graduate program surrounded its validity. I, like many others among the active duty ranks, did not believe AFIT provided much value as a research institute, compared to its graduate counterparts in the civilian realm. I certainly did not think it provided significant assistance to the civil engineer career field. To the contrary, AFIT provides valid, meaningful and continual assistance to the Air Force Civil Engineer career field, as well as to the general body of knowledge existent in environmental and engineering management.

A quick look at thesis titles shows the broad range of topics covered by the master's students in our class. Of 23 theses, all are currently being used by the research sponsors, or are serving as the basis for future research opportunities, in the Air Force as well as the civilian realm; in fact, one of them is currently being reviewed at the Air Staff level.

Another errant view I possessed applied to the GEEM program itself. The GEEM program offers two primary areas of study — environmental engineering and engineering management. The rumor was that GEEM was exclusively environmental, to the detriment of the management side of the program. Although that has been true in the past, the pendulum is swinging back to the management track.

Among the Air Force civil engineers in class 01M, the management students edged out the environmental ones 11 to 10; a quick glance over the thesis topics can further testify to this fact. This trend is continuing, as the management students outnumber the environmental ones 9 to 6 among the USAF civil engineers in class 02M.

In addition, at the request of major command (MAJCOM) and base civil engineers (BCE) in the field, an integrated process team (IPT) is being formed to ensure the GEEM program is supporting the managerial requirements of the career field. Contrary to its perception, AFIT's GEEM program is increasingly providing the engineering management training essential for tomorrow's civil engineer officers, while still affording the opportunity to "get your hands dirty" in the technically demanding

environmental realm.

Perhaps the most beneficial aspect of AFIT is the networking opportunities it provides for in-residence students. Opportunities exist on multiple levels, the first being within the civil engineer career field. In the GEEM program, officers ranged in rank from 2nd lieutenant to major, had collectively served in each MAJCOM, and possessed experience in the entire spectrum of USAF CE responsibility — including explosive ordnance disposal (EOD) and RED HORSE.

In addition, the co-location of the AFIT campus with the Civil Engineer and Services School (CESS) facilitates the interaction of graduate students with the officers responsible for training civil engineers in the field. This allows a valuable opportunity for students to provide assistance in the current problems, trends and concerns of "real world" Air Force civil engineering.

Another networking opportunity presents itself to in-residence AFIT students through the research sponsors. In accomplishing theses, graduate students must coordinate with real world sponsor(s) — entities outside of AFIT that have interest in the research being conducted. Many times these sponsors are active duty USAF CE officers who provide graduate students with real world exposure to the career field. Oftentimes, officers receive an assignment out of AFIT based upon the research they conducted and the sponsor with whom they coordinated the research effort. In class 01M, this occurred with two different officers.

Networking opportunities were present outside of the career field as well. The school supports USAF officers from numerous other career fields, providing an opportunity to see how the "other side" operates. Outside of Air Force officers, AFIT also graduated two civilians, five U.S. Army officers, one USMC officer (a civil engineer), and foreign officers from 13 different countries. The conglomeration of this broad range of experience, skills and philosophy tremendously augments the graduate education received at AFIT.

The impact of these experiences will be felt across the Air Force and sister services. Members of the class of 01M are currently serving in ACC, AETC, AFMC, PACAF, and USSPACECOM in a wide variety of positions, including base level and MAJCOM jobs, three new HORSEmen, a Special Programs Office post, and a CESS instructor. Most of them came to AFIT holding the same misconceptions that I did. But after 18 months, we've all moved on with a degree and a more accurate picture of what AFIT offers.

Capt Lance Clark is now chief, Readiness Flight, 36th Civil Engineer Squadron, Andersen AFB, Guam.

Thesis Titles for AFIT Class GEE-01M

- Analysis and Evaluation of the Macroscopic Organizational Structure of RED HORSE
- Optimization of Palladium-Catalyzed *In Situ* Destruction of Trichloroethylene-Contaminated Groundwater Using a Genetic Algorithm
- An Analysis of the Effectiveness of Pollution Prevention in Reducing Environmental Compliance Costs
- Modeling Biodegradation of Chlorinated Groundwater Contaminants Under Iron-Reducing Conditions of a Constructed Wetland: A System Dynamics Approach
- A System Dynamics Approach to Modeling Temperature Effects in Solid Waste Landfills
- Weapon System Environmental Life Cycle Cost Methodologies and Models
- Dissolution of Chromium from Inhalable Primer Paint Particles into a Simulated Lung Fluid
- Differences in Civil Engineer Perceptions of Change Based on Prior Training and Experience
- Analysis of Factors Influencing Tolerance of Fraternization
- Lifecycle Energy and Air Emission Differences Between Electric and Internal Combustion Vehicles
- Chromate Content Bias as a Function of Particle Size in Aircraft Primer Paint Overspray
- Predictability, Work-Family Conflict, and Intent to Stay: An Air Force Case Study
- Organization Design of Most Efficient Organization Air Force Civil Engineer Operations Flights
- Determining the Value of Groundwater Contamination Source Removal: A Methodology
- Factors Affecting Exchange Relationships Among Subordinates and Supervisors: A Study of Military Officers
- Modeling Chlorinated Ethene Removal in the Methanogenic Zone of Constructed Wetlands: A System Dynamics Approach
- Effects on the Red-Cockaded Woodpecker from Various Spatial and Temporal Applications of Management Practices
- Decision Analysis Methodology to Evaluate Integrated Solid Waste Management Alternatives for a Remote Alaskan Air Station
- A Model for Palladium Catalyzed Destruction of Chlorinated Ethene Contaminated Groundwater
- An Analysis of Civil Engineer Officer Contingency Training
- A Pharmacokinetic Study of the Effects of Stress and Exercise on Chemical Exposure
- Changing Organizations: A Meta-Analysis of Change Implementation Strategies' Effects on Organizational Outcomes
- Quantitative Validation of a Model of Chlorinated Ethene Natural Attenuation

Air Force Space Command Turns to Wind Power

by Mr. Quinn Hart
HQ AFCESA

Air Force Space Command is using wind power as a low-tech energy source to help operate a high-tech missile and satellite tracking station on Great Britain's Ascension Island.

The tracking station uses wind power to help conserve fuel oil, a precious commodity for an island located 500 miles south of the Equator in the middle of the Atlantic Ocean.

Electricity for the station is primarily provided by fuel oil-fired generators. To reduce fuel oil consumption, AFSPC took advantage of the Defense Department's Energy Conservation Investment Program (ECIP) and installed four 225-kilowatt wind generators to supplement the station's power requirements. The ECIP funds military construction programs primarily intended for energy conservation.

Fueling Ascension Island

4,000 acres leased from the United Kingdom
Average wind speed = 17 mph
Annual fuel use before wind turbines was 1.3 million gallons
Fuel use with four 225 kilowatt wind turbines is 1 million gallons
Fuel savings: $350,000 per year (39.8 billion BTUs)

Wind-generated power is fed onto the station's high-voltage electrical distribution system. A unique feature allows the wind machines to provide electrical production even at low wind levels. Instead of standing idle, the turbines slip into a mode that generates 40 kilowatts instead of the usual 225 kilowatts.

The Air Force is actively pursuing the use of wind generators, such as these on Ascension Island, at Air Force bases throughout the world. *(Photo courtesy HQ Air Force Space Command)*

The wind generators, built in 1996, have lowered fuel use by 287,000 gallons (39.8 billion BTUs) which equates to a savings of $350,000 annually. The project also reduces carbon dioxide and nitrous oxides by 2.8 million and 98,000 pounds, respectively, each year.

The project, completed in only six weeks, cost $3.1 million. A life-cycle cost analysis projects it will pay for itself in less than nine years.

"Because the project is so successful, AFSPC is submitting another ECIP project for an additional 1,500 kilowatts of wind generation that will supplement the current system on Ascension Island," said Mr. Craig Miller, Air Force Space Command facility energy manager. That project will cost $4.6 million and will produce an annual savings of about 65 billion BTUs and $485,000.

Since the ECIP began in 1991, the Air Force has completed 66 projects at a cost of more than $94 million, with energy savings of approximately $21 million per year.

Quinn Hart is head of the Air Force Facility Energy Program Management Team, HQ Air Force Civil Engineer Support Agency, Tyndall AFB, FL.

Editor's Note: The Air Force is actively pursuing the use of wind generation for Air Force bases throughout the world. Wind generation costs per kilowatt-hour have become very competitive with fossil- and gas-fired generation costs in many parts of the country. Emphasis for the short term has been on purchasing generation from existing wind farms or wind farms now under construction. For the long term, the Air Force is planning to build, or have a third party build, wind farms on bases that have the right wind and environmental characteristics.

CE Magazine Fall 2001

One Air Force, One Portal, One Civil Engineer Community

by Peter Cerauskis
HQ AFCESA

In the spring of 2000, the Air Force logistics community began an effort to prototype a web-based portal, much like My Yahoo, using a commercial off-the-shelf product. The idea was to give logistics folks a web tool that would give them access to all the tools they normally use in their daily job. During the summer, the Secretary of the Air Force visited industry leaders and, as a result, recommended the logistics portal concept be expanded to serve as the Air Force portal.

The prototype portal was demonstrated at Corona Fall, receiving rave reviews. Things began to happen quickly after that. The Air Force portal effort moved onto the fast track and began to accelerate at dot.com speeds. The portal concept was moved under the Global Combat Support System (GCSS-AF) umbrella and was designated the presentation layer of the GCSS-AF Integration Framework (IF). This officially moved the Air Force into the web environment. The Secretary of the Air Force stated that, as one of the Air Force goals, all unclassified combat/mission support and service applications would be available through the single Air Force portal by July 1, 2001. We had to hustle.

So, what does this all mean? Today, when you come to work, you turn on your computer and log onto the network. Your desktop appears with some, or a lot of, icons and shortcuts. You open your e-mail, check your calendar and begin your daily routine. At some point you log into the Automated Civil Engineer System (ACES). Maybe then you log into the Automated Business Services System (ABSS), the Standard Base Supply System (SBSS) or one of the numerous other systems we all work with.

Soon, when you come to work, you'll turn on your computer and log onto the network. Your browser will open and you'll log into the Air Force portal. You'll check your e-mail and calendar from the portal. Now that you have your coffee, you begin your day. You click on your ACES icon and start work. Next you click on the SBSS icon and work there. Notice, I never indicated you logged into another system? That's because the portal will provide you a single logon for all those systems. No longer will you need to remember all those other login IDs and passwords you use now. Nor will you be concerned with whether or not you are running the correct version of software. Because you are using your web browser for the job, you and everyone else will always be running the same version — the most current one.

The Air Force portal will provide a worldwide window into integrated, self-service, web-enabled information and capabilities. It will be accessible anytime, anywhere and serve as the primary point of access for all Air Force personnel to individual, functional and operational services. It will also take advantage of the smart technologies incorporated in GCSS-AF to optimize information dissemination. Like most websites today, you can set up your Air Force portal homepage to meet your needs.

Are we there yet? No, but we're stepping out smartly. The Air Force Civil Engineer Support Agency is working with Standard Systems Group (SSG) to migrate ACES to a web environment and link it to the Air Force portal. ACES Program Management (ACES-PM) is the first module to be web-enabled. With funding support from the Headquarters U.S. Air Force Directorate of Plans and Integration, Information Systems Integration Division, we have moved ACES-PM into the web environment and linked it through the Air Force portal. Our next step is to move ACES Housing and Real Property modules to the portal when we implement the single logical data model in February 2002. New ACES modules under development will be developed as web-based applications and fielded through the portal.

How do you get to the Air Force portal? The URL for the portal is: https://my.af.mil. You must have an account and password in order to gain access to the portal and all the functionality it provides. Your local communications squadron can help you. Once you log in, you can add shortcuts to the programs you use on your local personal computer, change color schemes, add links to web pages, and join web communities of interest to you.

We have developed a civil engineer community on the portal which will be home for CE automation systems, as well as provide document sharing, threaded discussions [like an old bulletin board, where groups of people can interchange documents or have a group discussion in writing], and a CE community calendar. Here you can currently find links to the Office of The Civil Engineer, Air Force Center for Environmental Excellence and AFCESA web pages, the Installation Readiness Capability Assessment Tool (IRCAT), and ACES-PM.

We are always looking for new ideas. We are considering linking the *Air Force Civil Engineer* magazine, major command CE, and The Society of American Military Engineer (SAME) and other professional societies' web sites to the portal through our community page. Now is the time to get started!

Peter Cerauskis is an Automated Civil Engineer System (ACES) support team member, HQ Air Force Civil Engineer Support Agency, Tyndall AFB, FL.

In Time of Need

RED HORSE delivers water before health facility runs dry

In late May, members of the Det. 1, 307th RED HORSE Squadron from Barksdale Air Force Base, LA, attempted to drill a well at the Gillis Long Center in Carville, LA. However, due to heavy flooding from Tropical Storm Allison — 3 to 4 feet of standing water at the site — the team had to evacuate before the project was completed. Luckily, the waters soaked into the ground, and they were able to return in July to finish the project. By then the facility, which had originally been getting by with two aging water wells, was down to one well that was producing only 30 gallons of water per minute. The supply of water was less than the demand.

The Gillis Long Center is a 330-acre, 100-building campus. Formerly a U.S. Public Health Service hospital for Hansen's disease, or leprosy, research and treatment since 1921, after starting as a state-run facility in 1894. The site was transferred back to the state in 1999 and its treatment and research functions moved to other locations. Patients living in the dormitories and cottages there are allowed to stay as long as they want and continue to receive health care and other services.

"About 25 patients remain at the center," said Capt Michael Falcon, 307th RHS operations officer. "Most of them are in their 80s now." One of the women that Captain Falcon met had been there since she was a teenager — almost 70 years. She even met her husband there.

The site is now used to promote public health and education, and is home to the Louisiana National Guard's Youth ChalleNGe Program, which educates and trains at-risk youth. The Louisiana Army National Guard manages the center and other facilities at the site, in addition to its regular mission.

TSgt Lonnie Anglin and SrA Derrick Hernasy, 307th RHS heavy equipment operators, check soil samples during well drilling at the Gillis Long Center in Carville, LA. ***(Photos by Jessica D'Aurizio)***

Since the Gillis Long Center is a government facility, the approval process for drilling the well was easier for RED HORSE. "We usually can get approval to drill a well when it can be proved that the people cannot economically afford to drill one themselves," said Falcon.

"We were in a situation where the one well we had needed maintenance, and we don't have access to city water," said camp utilities supervisor Byron Gautreau. Eventually the camp, which is in a somewhat remote location, hopes to be connected to the Baton Rouge public water system. Once that happens, they will use the wells for irrigation.

"We are required to drill a well once a year to keep up our proficiency," said Falcon. "We're supplying the know-how, and they're supplying the materials. Eight people worked on the well and five were in training." Normally the team drills 8- to 10-inch diameter wells, but the one they drilled for the center is 14 inches, because it needs to produce enough water to keep up with the needs of all the people at the facility.

According to CMSgt Louis Carroll, 307th RHS vehicle maintenance manager, every well is different, and just when you think you know what you're doing, Mother Nature throws you a curve. It takes about three years of drilling before you get good at it.

"These guys desperately needed the water," said Falcon. "They were to the point of shipping in water by truck the last week of our drilling." The well was completed July 25 and is now supplying the approximately 500 people at the center with almost 300 gallons of water per minute.

"This gives them more water than they will need," said Falcon. The 307th RHS said that not only has the water pressure increased, but also the water quality. *(Jessica D'Aurizio, 917th Wing Public Affairs)*

TSgt Lonnie Anglin and MSgt Charlie Wiltshire, 307th RHS heavy equipment operators, remove the pipe from the well hole after hitting water.

Boy Scout Bivouac

Eglin civil engineers combine civic assistance with Prime BEEF training

The Boy Scouts' Camp Euchee in DeFuniak Springs, FL, received a facelift just in time for its regional jamboree thanks to the 796th Civil Engineer Squadron, Eglin Air Force Base, FL.

The squadron, in cooperation with the Scouts' Gulf Coast Executive Council, provided manpower and equipment to upgrade the camp's facilities while providing the troops with training.

Eighty-four CE personnel arrived at Camp Euchee the evening of March 27 and stayed until April 5. An additional crew of 64 arrived that day and worked until late afternoon on April 6. Before the workers arrived, forward personnel brought some existing plumbing facilities up-to-speed so that a mini-tent city could be established to house squadron personnel.

"This is what we'd do in a real world situation if we went to a bare base that had some minimal assets," said 1st Lt Richard Martin, Readiness Flight chief. "We'd send someone forward to make modifications and integrate our tents into an existing 'base'."

While there, workers received both hands-on and multi-skill training for proficiencies outside their Air Force specialties.

"Although the multi-skill training isn't required, it feeds into their on-the-job training," said CMSgt John Gustafson, superintendent. "Multi-skill training makes everyone more versatile."

Besides accomplishing self-aid buddy care, field sanitation and hygiene training while out in the field, the CE personnel were also able to exercise their deployment skills.

"We addressed the logistics of hauling several hundred tons of heavy equipment to the site and provided our own power production," Gustafson added. "We also fed people meals-ready-to-eat or box lunches twice a day and the Top 3 sponsored a 'burger burn' to offer a choice at dinner."

Once logistics were addressed, the real work began. The executive council provided $20,000 worth of supplies, while CE-donated labor saved an estimated $67,000.

The first job tackled was a 45-year-old roof in the dining facility that required 4,500 square feet of repairs that took 850 man-hours. The facility also got a new drop ceiling in the kitchen, new electrical service and plumbing repairs.

"The roof was leaking so badly that they had to use pots to catch the drips," Gustafson said. "It was a safety and health hazard."

The main meeting building was scheduled for a new ceiling; however, the entire gable wall on the inside needed to be replaced when termite damage was discovered. The results included new lighting, bathroom repairs, porch roof supports and several interior and exterior doors.

Next, 100 loads of clay were used to rebuild a small arms firing range earthen berm backstop. Crews also graded and fixed eroded areas on 8 miles of roads and in the parking lot area.

"The utilities troops installed a water flow meter to bring the camp into compliance with Florida law," Gustafson reported. "The council was in danger of incurring fines if this wasn't fixed."

When the jobs were finished, there was a sense of accomplishment for everyone involved with the renovations.

"Not in a million years could we have gotten done what was accomplished at the camp," said Phil Cranford, scout executive of the Gulf Coast Council. "Money notwithstanding, we couldn't have contracted out the labor or the expertise to make the improvements."

Cranford said he was amazed at the thanks he received for the training.

"Everyone's attitude was just incredible; when I pulled into the parking lot and saw three big bulldozers and the dump truck, I knew CE's contributions would be invaluable."

"People like to feel good about helping someone else," Gustafson stated. "When we left the deployment area, we could look over our shoulder and see what we did."

Both Martin and Gustafson feel that combining civic action with Prime BEEF training is a good plan and one they hope will continue.

"Sometimes we get bogged down here because a lot of the CE work is repetitive," Martin admits. "This breaks up the routine."

"I wish we could have stayed up there for a week," Gustafson confided. "Getting away from the base is good for team building, unit integrity and skills training." *(Lois Walsh, AAC Public Affairs)*

Members of the 796th CES repair a leaky roof for the Boy Scouts at Camp Euchee in Florida. ***(Photo by SrA Allyson McChord)***

Aleut Remains Returned to Shemya Island

Human remains taken from Shemya Island at the height of World War II were returned to the Aleut Corporation by the U.S. Air Force, 611th Air Support Group, and reburied on Shemya Island May 15, 2001. The human remains and associated funerary objects were repatriated to the Aleut Corporation under the Native American Graves Protection and Repatriation Act (NAGPRA) last fall.

Vincent Tutiakoff and Father Peter Bordukofsky performed the burial ceremony at the small Aleut cemetery on Shemya Island. *(Photo courtesy 611th CES)*

The human remains were removed from Shemya Island during the construction of a runway in 1943. Mr. C.B. Kimbrough, a contract engineer for the Baker Engineering Company who worked at Shemya during the war, removed the remains and objects during airfield runway construction. Mr. Kimbrough donated the remains and associated funerary objects to the W.H. Over Museum of Vermilion, SD, in 1944.

NAGPRA went into effect in 1990, requiring museums to inventory human remains and other items that might be authorized for repatriation to Native American groups under the act. When the W.H. Over Museum and the South Dakota Historical Society's State Archaeological Research Center (SARC) completed its inventory, it discovered the collection from Shemya Island. Consequently, the remains were transferred in 1997 to SARC for inventory, consultation and repatriation under NAGPRA.

Because the remains and funerary items were recovered from an Air Force facility, they were transferred to the 611th ASG at Elmendorf AFB, AK, for repatriation. The 611th ASG manages remote installations throughout Alaska, including Eareckson Air Station on Shemya Island. Cultural Resource managers at the 611th ASG worked closely with the Aleutian Pribilof Islands Association, the Aleut Corporation and the U.S. Fish and Wildlife Service to resolve the repatriation issue.

A Notice of Inventory Completion was placed in the Federal Register in May 2000 and the Aleut Corporation claimed the human remains and associated funerary objects. The associated funerary objects included stone, bone and antler points, a wedge, harpoon pieces, an awl and a needle. This was the first repatriation of remains to the Aleut Corporation under NAGPRA. *(Karlene Leeper, 611th Civil Engineer Squadron Environmental Flight)*

Soil Reuse Plan Saves $10M

Environmental engineers at Lackland Air Force Base, TX, are chemically treating and reusing 70,000 cubic yards of lead-contaminated soil to cap an old landfill, saving the Air Force $10 million.

Engineers are mixing the soil from a former 120-acre firing range with a blend of environmentally safe chemicals, which makes the resulting dirt harmless. Called MAECTITE, the process locks the lead into the soil to keep it from migrating out or deeper into the ground.

"Reusing treated soil is a rare occurrence," said Ed Roberson, 37th Civil Engineer Squadron Environmental Flight chief. "Environmental regulators traditionally will not allow it. But Texas regulators gave us the green light, since its final destination is a landfill."

Workers are applying the soil as a foundation for the cap, covering it with 25,000 cubic yards of clean soil and planting grass on top to prevent erosion.

"Since the treated soil is contained, it doesn't pose any risks to humans or the environment," said Mr. Roberson.

If left untreated, the soil is categorized as hazardous waste. The standard remedy is disposal at a licensed landfill equipped to handle this type of waste. However, the nearest facility is 140 miles away.

Mr. Roberson and other base environmental officials evaluated several options, but concluded the reuse plan was the most efficient and economical course of action.

"It's a very sensible approach benefiting the environment and taxpayers," he said. "It keeps 3,500 truckloads of untreated soil off the highway, and eliminates exorbitant transportation and disposal fees that generally run $250 per cubic yard and the need to purchase additional soil for the foundation."

Since the soil will remain on base, it also alleviates the fears of citizens who expressed concerns of hazardous waste going through their neighborhoods, he added.

Security police forces used the former firing range for more than 40 years until it closed in 1982. A preliminary assessment and site investigation conducted in 1994 confirmed the area was contaminated with lead and other metals consistent with its use as a firing range complex.

Cleanup completion is expected by December. Plans for the restored range site include recreational and industrial uses, said Mr. Roberson. *(Ron Scharven, 37th Training Wing Public Affairs and Olga Purpura-Clark, Air Education and Training Command Public Affairs)*

Civil Engineer Among Air Force's "12 Outstanding Airmen"

First-rate and second to none!

These are the words that introduced the award-winning package of SSgt James J. Delo — one of the Air Force's 12 Outstanding Airmen of the Year.

Sergeant Delo accepted the news of winning this prestigious award with humility, and credited his drive for excellence to the strong air of pride within his squadron.

"When you have people that you work for who give 110 percent, you'll want to give 110 percent," Sergeant Delo said. "That's what keeps me going."

Sergeant Delo is a member of the Det. 1, 823rd RED HORSE Squadron cadre at Tyndall Air Force Base, FL. A carpenter by trade, Sergeant Delo trains 400 students annually in the areas of rapid runway repair and construction of the new base sheltering systems.

So what made this airman outstanding? The 23-year-old Pittsburgh native says the uniqueness of his job opened doors of opportunity for him to excel. While instructing his students, Sergeant Delo found ways to improve their training equipment and facilities. He initiated efforts to correct design inefficiencies with the new Alaskan Small Shelter System (used for billeting), saving the Air Force $4,000 in contract costs. He also served as the technical advisor to Applied Research Associates in developing an interactive training CD.

A skillful asset manager, Sergeant Delo saved the Air Force $2,700 in replacement parts while repairing four pneumatic hammer drills. In addition, he discovered that replacing the diesel engines in the airfield recovery paint striper with gasoline engines would significantly cut maintenance time.

Sergeant Delo led a crew of 22 in the reconstitution of 14 TEMPER tents that are now 100 percent ready to deploy. He was also a key player in the success of last year's Readiness Challenge competition. For these and many more achievements, Sergeant Delo was awarded one of only five Air Force Civil Engineer medallions presented to members of the Silver Flag Exercise Site cadre by Maj Gen Earnest O. Robbins II for "excellence above and beyond." *(From an article in the* Gulf Defender *by 2nd Lt Serena Custis, 325th Fighter Wing Public Affairs)*

SSgt James Delo *(2nd from right)*, one of the Air Force's 12 Outstanding Airmen of the Year, instructs students on how to build a California Medium Shelter System at the Det. 1, 823rd RHS Silver Flag Exercise Site. *(Photo by 2nd Lt Serena Custis)*

Fire Prevention Week 2001

A1C Scott Rutkauskas, 52nd Civil Engineer Squadron, shows first grade students from the elementary school at Spangdahlem Air Base, Germany, the types of equipment and tools used to combat a fire. Sparky the fire dog and other firefighters talked to the students about fire safety and emergency procedures, such as "stop, drop, and roll," during Fire Prevention Week Oct. 7-13. This year's theme, "Cover the Bases & Strike Out Fire," communicated safety messages through the language of baseball, combining America's favorite pastime with important fire safety tips to teach children and their families how they can "cover the bases" to "strike out" preventable home fires. *(Photo by SrA Karen Z. Silcott)*

2001 Air Force Design Awards

The Air Force has announced the winners of its 2001 Design Awards Program. Twenty-five awards were given this year to recognize projects that have achieved the Air Force goal of design excellence as it relates to the natural and built environment.

Three levels of awards are given: the Honor Award, Merit Award and Citation Award, the Honor Award being the highest of the three. There are no quotas as to the number of awards given, and there is no ranking of winners within any of the award levels. These awards mark the 26th year of the program, which is administered by the Air Force Center for Environmental Excellence at Brooks Air Force Base, TX.

Honor Award – Interior Design
Base Chapel
Aviano AB, Italy
Base Engineer: 31st CES

Airman Dining Hall
Whiteman AFB, MO
Design Organization: 509th CES

Honor Award – Facility Design
Ambulatory Health Care Center
Maxwell AFB, AL
Base Engineer: 42nd CES

Visitor Center
Vandenberg AFB, CA
Base Engineer: 30th CES

Merit Award – Planning Studies and Design Guide
General Plan
Kadena AB, Japan
Base Engineer: 18th CEG

The Base Chapel, Aviano Air Base, Italy. *(Photos courtesy AFCEE)*

Merit Award – Concept Design
Headquarters Facilities for NORAD, U.S. Space Command and Army Space Command
Peterson AFB, CO
Base Engineer: 21st CES

Dining Facility
Portland International Airport
Oregon Air National Guard
Base Engineer: 142nd CES

Consolidated Lodging Facility
Minneapolis-St. Paul International Airport
Air Reserve Station, MN
Base Engineer: 934th CES

Merit Award – Interior Design
Air Force Reserve General Training Facility
Travis AFB, CA
Base Engineer: 60th CES

Merit Award – Facility Design
Main Fire/Crash Rescue Station
Ellsworth AFB, SD
Base Engineer: 28th CES

Fire Rescue Station
Kullis Air National Guard Base, AK
Base Engineer: 176th CES

Dormitory Complex
Edwards AFB, CA
Base Engineer: 95th CEG

Consolidated Base Support Complex
Ellsworth AFB, SD
Base Engineer: 28th CES

Merit Award – Family Housing
San Quirino Housing Units
Aviano AB, Italy
Base Engineer: 31st CES

Citation Award – Planning Studies and Design Guide

General Plan
RAF Croughton, United Kingdom
Base Engineer: 422nd CES

Dormitory "Super Block" Master Plan
Vandenberg AFB, CA
Base Engineer: 30th CES

Master Plan
U.S. Air Force Academy, CO
Base Engineer: 10th CEG

Citation Award – Concept Design

Enlisted Club
Hickam AFB, HI
Base Engineer: 15th CES

Medical Treatment Facility
Aviano AB, Italy
Base Engineer: 31st CES

Air Traffic Control Tower
Wright-Patterson AFB, OH
Base Engineer: 88th ABW/CE

Base Operations Renovation
Grand Forks AFB, ND
Base Engineer: 319th CES

The Airman Dining Hall, Whiteman AFB, MO.

Sonoran Vista Housing Neighborhood Landscaping
Davis-Monthan AFB, AZ
Design Organization: 355th CES/AFCEE

Memorial Pavilion
U.S. Air Force Academy, CO
Base Engineer: 10th CEG

Citation Award – Interior Design

World War II Chapel Renovation
Vandenberg AFB, CA
Base Engineer: 30th CES

Citation Award – Family Housing

Family Housing Addition
Pacific Heights Family Housing Annex, CA
Base Engineer: 61st ABG/CE

The Visitor Center, Vandenberg AFB, CA.

The Ambulatory Health Care Center, Maxwell AFB, AL.

Rising to the Challenge

Air Force firefighters beat the clock to qualify for worldwide competition

by John Van Winkle
U.S. Air Force Academy Public Affairs

It took A1C Josh Sarters two minutes and one separated shoulder to go from local firefighter to national competitor, with two seconds to spare.

Sarters, a 21-year-old firefighter with the U.S. Air Force Academy Fire Department, qualified for worldwide competition during the Rocky Mountain Firefighter Combat Challenge regional competition in Cheyenne, WY, in August.

Sarters' time of 1:58 also helped qualify the Academy team for that same worldwide competition, the World Firefighter Combat Challenge.

The Firefighter Combat Challenge is hailed by ESPN as the toughest two minutes in sports. The cable sports network broadcasts the annual competition, which is designed to simulate the real-life demands of firefighting with five fire-scene tasks. The timed event consists of a five-story tower climb, a five-story hose hoist, forcible entry, hose advance and victim rescue.

And while the regional challenge drew teams from Colorado, Idaho, South Dakota, Wyoming and Montana, the firefighters weren't so much competing against each other as they were competing against the clock. Earning the coveted first, second or third place finish won't get you into the worldwide competition. It's time that's the real opponent.

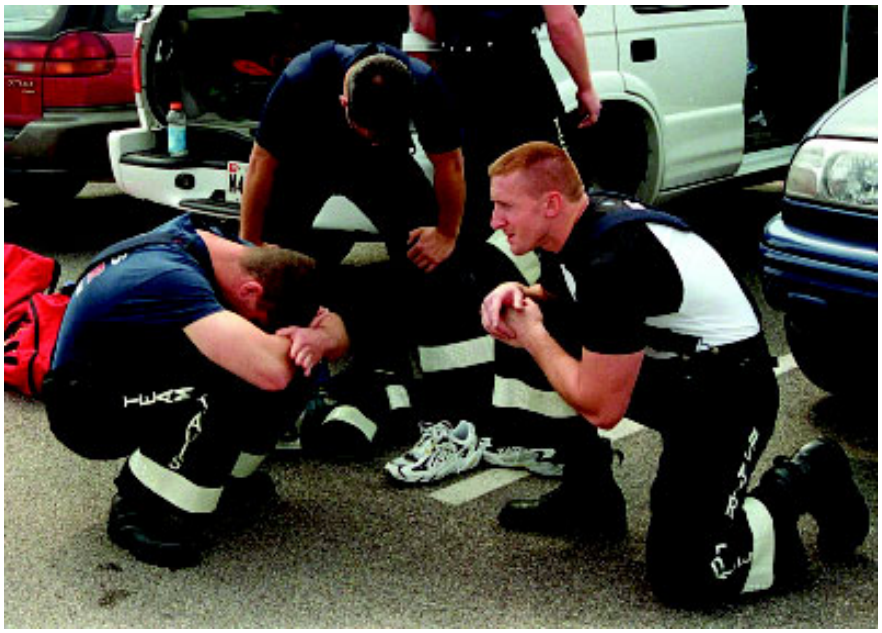
The magic time is seven minutes for the five-person teams. The team's three best times are used to calculate their overall time. The Academy team of Sarters, Dan McAuliffe and Airmen 1st Class Kory Cofers, Mark Goenen and Michael Gagnier qualified for the worldwide competition with a time of 6:24:29.

For individuals, the magic time is two minutes. Completing the Combat Challenge course in less than two minutes qualifies an individual firefighter, such as Sarters, for the national competition, and usually leaves them feeling it for days afterward.

Sarters was no exception to paying the physical toll, suffering a slightly separated shoulder yet still completing the event. For the 6' 4", 215-pound airman, the Combat Challenge started normally enough — racing up five flights of stairs while carrying a 44-pound fire hose and wearing 60-plus pounds of protective and breathing gear.

Dropping the hose in a box at the top of the stairs, Sarters moved on to the hoist pull at the tower's top railing, hoisting a 45-pound rolled-up firehose straight up the five-story

The Firefighter Combat Challenge attracts hundreds of U.S. and Canadian municipal fire departments each year at more than 25 locations and is seen by more than 30 million people worldwide, according to the competition's web site. The competition seeks to encourage firefighter fitness and demonstrate the profession's rigors to the public.



Team Travis members A1C Brian Driscoll and Mike Romano and SSgt Mike Melton take a moment to prepare themselves before an upcoming team relay event during regional Firefighter Combat Challenge competition. *(Photo by SSgt A.J. Bosker)*

The SAM Squad (Soldiers, Sailors, Airmen and Marines) from the Louis F. Garland DoD Fire Academy qualified in the relay team event. Team members *(from left to right)* are Sgt Joe Foucha, U.S. Marine Corps; SrA Chad Chavers, U.S. Air Force; and SSgt Omar Moore, U.S. Army. *(Photo courtesy DoD Fire Academy)*

distance. The firehose is attached to a rope for this event, which taps solely into the firefighter's upper body strength as they pull the rope up hand over hand.

"On one of the pulls, my right shoulder popped out of socket, and then I switched arms," said Sarters. "And when I was pulling with just my left, I popped my right [shoulder] back in place, and I kept moving."

But the damage was done. "When I got the hose roll up to the top, I couldn't lift it over with my right arm," he recalled. So the right-handed firefighter had to use his left arm and burn precious seconds just to get the firehose over the railing.

Bounding down each of the 63 stairs, Sarters headed to the forcible entry event. Rather than busting down a door, this event challenges firefighters to use a 9-pound mallet to move a 160-pound I-beam forward 5 feet. "By that time, the adrenalin kicked in, so I didn't notice the pain much," he said.

Following the forcible entry, Sarters had to run 140 feet through a mini-obstacle course. "Then I got to the hose pull and it was with the same shoulder."

Working through the pain, Sarters pulled the firehose the required 75 feet then nailed the basketball-sized target with a stream of water. That left only one event — the Combat Challenge's final and most grueling episode — the simulated rescue.

Firefighters have to grapple a life-sized, 175-pound mannequin under the armpits and drag it backwards 100 feet to complete the event. "By the time you get to that point, your legs just don't want to move," said Sarters. "Then it's all muscle endurance — leg endurance."

But his injured shoulder started to lose strength, which loosened his grip on the mannequin. "It was getting weak, and I had 10 feet left when I looked back," Sarters said. With his arm strength starting to finally give way, he literally fell back across the finish line and completed the Challenge with two seconds to spare.

Sarters is only the second firefighter in the event's 10-year history to qualify for nationals during his first competition. He gives part of the credit to his teammate and rival, Cofers. "If it wasn't for Kory, I wouldn't push as hard as I do," Sarters said. "Ever since we started, ever since we got to know each other, Kory and I have always been competing, especially with the Firefighter Challenge. I had the fastest time out of the blocks when we started this, and then he'd better my time, and I'd better his."

But the end of the regional competition was by no means an end to the rigorous training needed to maintain their competitive edge. Once Sarters' shoulder was fully healed, he joined Cofers and the rest of the Academy team at hitting the weights program and the high-carbohydrate, high-protein diet designed by the USAFA Athletic Department's Human Performance Lab in preparation for the World Firefighter Combat Challenge Oct. 30 to Nov. 3 in Memphis, TN.

Firefighters from Travis Air Force Base, CA; Little Rock AFB, AR; Ramstein AB, Germany; and RAF Mildenhall, U.K. qualified for the World Firefighter Combat Challenge team event as well. Four Travis firefighters, A1Cs Harry Myers and Mike Romano and SSgts Armando Eversley and Mike Melton, and one Mildenhall firefighter, SrA Brian Knoke, qualified for the individual competition. In addition, teams from Travis; Little Rock; Edwards AFB, CA; Nellis AFB, NV; Tinker AFB, OK; and the Louis F. Garland Department of Defense Fire Academy, Goodfellow AFB, TX, qualified for the relay team event.

Editor's note: Nellis, Mildenhall, Tinker and USAFA firefighters were unable to attend the World Firefighter Combat Challenge due to world events. The results of the competition will be provided in our next issue.

A1C Josh Sarters, 510th CES, edges the last few feet to the finish line while dragging a 175-pound mannequin during the final event of the Firefighter Combat Challenge. Sarters finished the regional event with a time of 1 minute, 58 seconds, qualifying for this year's World Firefighter Combat Challenge. ***(Photo by John Van Winkle)***

Firefighter Dan McAuliffe, 510th CES, begins his five-story ascent while carrying a 44-pound fire hose to begin the Firefighter Combat Challenge. McAuliffe is the lone civilian on the U.S. Air Force Academy team. ***(Photo by John Van Winkle)***

Air Force Firefighters Win DoD Awards

The Air Force claimed three firefighting awards at the annual Department of Defense Fire-Rescue International Training Conference Aug. 23-30 in New Orleans, LA.

SSgt Kile W. Stewart, 18th Civil Engineer Group, Kadena Air Base, Japan, was honored as the DoD Military Firefighter of the Year; Joseph R. Suddarth, 96th CEG, Eglin AFB, FL, was named DoD Civilian Firefighter of the Year; and the 35th Civil Engineer Squadron Fire Protection Flight, Misawa AB, Japan, received the DoD Outstanding Fire Department of the Year Award. All became nominees for the DoD competition after winning at the Air Force level.

Stewart's professionalism has been recognized throughout Pacific Air Forces Command (PACAF). He was named the 18th Wing's Noncommissioned Officer of the Year, was PACAF's Lance P. Sijan Air Force Leadership Award winner, and was the command's nominee for the Maj Gen Eugene A. Lupia Civil Engineer Military Technician of the Year Award.

"To be named Firefighter of the Year for DoD is an overwhelming honor," said Stewart, a third-generation firefighter. "Without the people I work with, this would never have been possible."

Mr. Suddarth was the 96th Air Base Wing and Air Armament Center Civilian of the Year and was named an Outstanding Performer during the wing's Operational Readiness Inspection. He was also named Firefighter of the Year by the Fort Walton Beach Rotary Club. Last year he helped save the lives of two people in separate incidents. In one, he gave artificial respiration to a six-month-old child who had stopped breathing, and in the other, assisted a woman complaining of severe chest pain.

Fiscal year 2001 was a busy one for the members of the 35th CES Fire Protection Flight. Flight members had the unusual opportunity to rescue a lost skier on a mountain, untangle a KC-135 that skidded off the runway and became entangled in barrier netting, and rescue a badly injured construction worker trapped in an underground fuel storage tank. In addition, the unit had more than 3,420 man-days deployed in support of the Aerospace Expeditionary Force, PACAF exercises, and the international G-8 Summit.

Other Air Force winners include SSgt Christopher M. McCollum, an instructor at the Louis F. Garland Fire Academy, Goodfellow AFB, TX, who received the DoD Fire Academy Instructor of the Year award. Mark A. Smith and Neil A. Davies, RAF Lakenheath, England, won the Air Force Heroism Award; Ernst R. Piercy, U.S. Air Force Academy, CO, won the Civilian Fire Officer of the Year Award; and SMSgt Timothy J. Seigal Sr., Edwards AFB, CA, won the Military Fire Officer of the Year Award.

Air Force winners competed against firefighters from the U.S. Army, Navy, Marines, Coast Guard and Defense Logistics Agency for the DoD awards. *(TSgt Michael A. Ward, HQ AFCESA Public Affairs)*

Joseph R. Suddarth *(left)*, 96th CEG, was named DoD Civilian Firefighter of the Year.

MSgt Scott Hall and CMSgt (ret) Mark Giuliano accepted the DoD Outstanding Fire Department of the Year Award on behalf of the 35th CES Fire Protection Flight.

SSgt Kile W. Stewart *(center)*, 18th CEG, was named DoD Military Firefighter of the Year. *(Photos by Donald Warner)*

Air Force Energy, Water Managers Earn DOE Awards

Saving energy and money while helping the environment earned the Air Force four Federal Energy and Water Management Awards this year. The awards, sponsored by the U.S. Department of Energy's Federal Energy Management Program, are given annually to recognize outstanding contributions toward increased energy efficiency, renewable energy and water conservation within the federal sector.

Clockwise from top: **Charles Guess, Kelly Jordan, Jim Bertrand, Lt Tammy Gray and Ron Trepanier**

Energy Efficiency/Energy Management

An Energy Efficiency/Energy Management Award in the small group category went to the 17th Training Wing's Base Energy Team, Goodfellow Air Force Base, TX. Team members Ron Trepanier, Jim Bertrand, Charles Guess, Kelly Jordan and Lt Tammy Gray made Goodfellow AFB a leader in meeting National Energy Policy conservation and cost savings goals.

Garland Scott

Ron Trepanier has managed energy savings projects implementing $3 million in Energy Savings Performance Contracts (ESPCs), saving 25,837 MMBTU and $246,000 per year, and reducing energy use by 9.5 percent.

Jim Bertrand accomplished nine major heating, ventilation and air conditioning (HVAC) projects, a large portion of them installed in-house, saving the government more than $60,000 on contract costs and yielding additional savings of more than 7,572 MMBTUs and $85,000 annually.

Charles Guess and Kelly Jordan programmed and defined modifications to the Energy Management Control System (EMCS) to incorporate more efficient control and on/off schedules for implementing peak energy shavings, cutting an estimated 400 kW per month and saving more than $19,000.

Lt Tammy Gray programmed and monitored the Energy Awareness Program, creating contests and awards, mock billing, newspaper articles, and a housing energy program that has saved an estimated 84 megawatt-hours and more than $5,800 annually.

Effective Program Implementation and Management

Garland Scott, P.E., C.E.M, command energy manager for Air Education and Training Command, Randolph AFB, TX, and Thomas W. Waller, C.E.M., base energy manager/utility engineer, 14th Civil Engineer Squadron, Columbus AFB, MS, both received Effective Program Implementation and Management Awards.

Garland Scott developed and implemented an AETC incentive award program in which 13 U.S. Air Force installations compete for $100,000 each year for their energy awareness and conservation programs. He was also responsible for securing alternative financing and successful implementation of more than $200 million in projects, getting 15 task orders awarded through ESPCs and 10 task orders awarded through Utility Energy Savings Contracts.

Thomas W. Waller

Among Thomas Waller's accomplishments, his efforts at Columbus AFB resulted in an 11 percent increase in energy efficiency, including improvements to the base infrastructure, reductions in maintenance requirements, and increased operational abilities, saving $29,200 compared to the previous year. Energy evaluations and conservation under his guidance are estimated to account for annual energy savings of 205 MMBTUs.

Exceptional Service

William G. King, Jr., C.E.M. base energy manager and mechanical engineer for the 354th CES at Eielson AFB, AK, received one of three Exceptional Service Awards.

His efforts at Eielson AFB over the past year have resulted in several energy and water management improvements, including: an ESPC estimated to save approximately 24,300 MMBTU per year, equating to $332,101 annually; the conversion of 1,505 tons of solid waste into a usable fuel source for Eielson; and the planning, design and construction of several distribution projects that may save the base more than $3 million in energy costs annually.

William G. King, Jr.

For more information on the awards program, call Quinn Hart, Air Force Facility Energy Program Manager, HQ Air Force Civil Engineer Support Agency, DSN 523-6361 or commercial (850) 283-6361. *(Bill Autin, HQ AFCESA Energy Awareness)*

Bird Conservation Efforts at Holloman Rewarded

Holloman Air Force Base, NM, captured a national-level award for its bird conservation efforts.

The Lake Holloman Wildlife Refuge Area won a 2000 Partners in Flight Award for exceptional contributions in the field of migratory bird conservation. The award came in the stewardship category, which recognizes organizations that have excelled in the protection and restoration of bird habitats.

"I was unbelievably excited and extremely proud of Holloman Air Force Base," said Dr. Hildy Reiser, chief of the natural resources element in the 49th Civil Engineer Squadron's Environmental Flight. She said the significance of the award reaches well beyond U.S. borders, with individuals from Canada, Mexico, Central America and the United States making up the award committee.

According to Brad Jacobs, chair of Partners in Flight's National Awards Committee and a wildlife ecologist with the Missouri Department of Conservation, several criteria made the Lake Holloman Wildlife Refuge Area stand out.

In 2000, the environmental flight increased the wetlands area by 125 acres, creating more aquatic vegetation for nesting shorebirds. The move increased the nesting area for the western snowy plover and American avocet, both "priority" species for Partners in Flight, as well as habitats for the snowy egret, green heron and black-necked stilt.

The environmental flight has enlisted the support of surrounding communities by generating interest in the wetlands. Eagle Scouts, New Mexico State University students and others have carried out projects and conducted studies in the wetlands. The environmental flight's efforts spawned interest in a cooperative public education project with the White Sands National Monument and the World Wildlife Fund.

Partners in Flight is a cooperative effort among federal, state and local government agencies, philanthropic foundations, professional organizations, conservation groups, industry, the academic community, and private individuals. Participants include 16 federal agencies, 40 private organizations, more than 60 state and provincial fish and wildlife agencies, numerous universities, and the forest industry. Holloman's stewardship award was the only national award given in New Mexico by Partners in Flight this year. *(SrA Aaron Cram, 49th Fighter Wing Public Affairs)*

2001 Major-Selects

The following Air Force civil engineer officers have been selected for promotion to major. Congratulations to all on their dedication and achievement.

James R. Albrecht
John J. Allen
James R. Beam Jr.
Aaron K. Benson
Ann M. Birchard
Joel J. Burnias
Paul Cotellesso
Thomas J. Davison
Anthony J. Davit
David E. Diazroman
Daniel J. Gerdes
Dean H. Hartman
Jeffrey L. Heiderscheidt
James C. Hodges
David M. Hunter
Hector E. Jamili
Andrew C. Johns
James H. King Jr.
David J. Lawrence
David W. Lawrence
Gary E. Lund
Brian G. May
Shawn D. Moore
John F. Muratore
Michael L. Myers
Christopher A. Pleiman
Michael T. Roth
Charles O. Slaby III
Mark A. Sloan
Gordon R. Taylor
Christopher J. West
Ida Lee Widmann
Garrick T. Williams
Thomas N. Williams
Aaron A. C. Young

314th Civil Engineer Squadron

Location: Little Rock Air Force Base, AR **Commander:** Lt Col Michael Falino **Assigned Personnel:** 216 military, 113 civilians and 44 Individual Mobilization Augmentees **Unit Mission:** To provide base support for a continuous training mission and ensure access for a global airlift mission. **Alias:** Combat Engineers

Base, Wing and Unit History: In 1951 the Air Force considered building a base in the Little Rock area, but Congress refused to allocate money to purchase the property. Undaunted, local citizens raised funds to purchase the land from more than 150 private owners, then donated the land to the Air Force. Little Rock AFB opened in October 1955 and maintains the same community support and spirit.

The base consists of more than 6,000 acres, a 12,000-foot runway and 3,500-foot assault strip. It has a population of more than 5,000 active-duty military and civilian members and about 5,500 family members. The base has operated under various commands, including Strategic Airlift Command, Tactical Air Command, Military Airlift Command, Air Mobility Command, Air Combat Command and, finally, AETC. During the ACC years, the 314th CES adopted the unofficial title of "Combat Engineers." They proudly carry that name today.

Recent Accomplishments: The past year has provided many opportunities for the Combat Engineers to do what they do best — perform as a team. With firefighters leading the charge, the entire unit fought a 25-acre woodland fire that threatened 12 base housing units. They stopped the fire cold just 50 feet from the homes, valued at 1.5 million dollars.

The Combat Engineers deployed more than 50 personnel to eight locations in support of five operations over the past year, including a team deployment to Kuwait under Operation Southern Watch. In December 2000, Arkansas was devastated by two of the worst ice storms in its history. Despite the majority of the state being without power for up to 14 days, base operations were practically unhindered as snow and ice teams maintained a 100 percent operational aerodrome and base accessibility.

314th CES efforts this year were not limited to contingency and emergency response; Combat Engineers also demonstrated they can be civil. Our Environmental Flight established a Consent Administrative Order (CAO) to set ground rules for compliance issues between the base and state. The CAO fosters close work relations with Arkansas regulators and is the first of its kind Air Force-wide. Through integrated process teams, the Housing Flight executed a benchmarked privatization acquisition program to improve the quality of living for military families. The Engineering Flight has earned the AETC Civil Engineer/Logistics Partnering Award for the second consecutive year. The 314th CES also received the DoD Fire Department of the Year Award in 1999 and was recently selected as the AETC Outstanding Small CE Unit for the second year in a row.

The future of "The Rock" is in good hands.

UNIT SPOTLIGHT

Firefighters and other troops wave flags as a B-52H taxis toward the runway for takeoff at a forward deployed location during Operation Enduring Freedom Oct. 7, 2001. *(Photo by SrA Rebeca M. Luquin)*